FCC ID: E8HMP-979

EMC

TEST REPORT

REPORT NO. : F87030502
MODEL NO. : MP-979, MP-979P
DATE OF TEST : March 5, 1998

PREPARED FOR : CHICONY ELECTRONICS CO., LTD.

ADDRESS : NO. 25, WU-GONG 6TH RD., WU-KU INDUSTRIAL PARK, TAIPEI HSIEN, TAIWAN, R.O.C.

PREPARED BY: ADVANCE DATA TECHNOLOGY CORPORATION

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12F, NO.1, SEC.4, NAN-KING EAST RD.,
TAIPEI, TAIWAN, R.O.C.

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1. CERTIFICATION

Issue Date: Aug. 13, 1998

Product	:	NOTEBOOK COMPUTER
Trade Name	:	CHICONY
Model No.	:	MP-979, MP-979P
Applicant	:	CHICONY ELECTRONICS CO., LTD.
Standard	:	FCC Part 15, Subpart B, Class B ANSI C63.4-1992 CISPR 22: 1993 +A1+A2

We hereby certify that one sample of the designation has been tested in our facility on March 5, 1998. The test record, data evaluation and Equipment Under Test (EUT) configurations represent herein are true and accurate representation of the measurements of the sample's EMC characteristics under the conditions herein specified.

The test results show that the EUT as described in this report is in compliance with the Class B limits of conducted and radiated emission of applicable standards.

TESTED BY: John Liao , DATE: 8/13/98
(John Liao)

CHECKED BY: Sharon Hsiung , DATE: 8/13/98
(Sharon Hsiung)

APPROVED BY: Mike Su , DATE: 8/13/98
(Mike Su)

ADVANCE DATA TECHNOLOGY CORPORATION

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	NOTEBOOK COMPUTER
Model No.	:	MP-979, MP-979P
Power Supply Type	:	DC 19V (from power adapter)
Power Cord	:	Nonshielded AC (1.8m) Nonshielded DC (1.8m)

Note: The EUT has two model names which were tested separately, and the data of the tests are recorded in this report.

This model was tested with either of the following two power adapters

1. DELTA power adaptor, model: ADP-50GB. Its rating:
   Input: 100~240Vac, 50~60 Hz, 1.5A
   Output: 19V, 2.64A

2. BESTEC power adaptor, model: BPA-501-19N. Its rating:
   Input: 100~240Vac, 50~60 Hz, 2A
   Output: 19Vdc, 2.63A

The EUT has an internal fax modem card installed in it.

The EUT was tested under the following configuration:

Test Mode	LCD Panel	CPU	FDD Driver Bay	CD-ROM DRIVE	Parallel port	Power Adapter	Resolution
1	NEC 14.1" TFT	INTEL MMO 266 MHz	IOMEGA ZIP Z100NB	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	1024x768
2	LG 14.1" TFT	INTEL MMO 266 MHz	FUJITSU MO M2541BE02	KME CD-ROM, UJDA110 (20X)	TEAC FDD FD-05HG	BESTEC	1024x768
3	PANASONIC 13.3" TFT	INTEL MMO 266 MHz	TEAC FDD FD-05HG	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	1024x768
4	LG 13.3" TFT	INTEL MMO 266 MHz	MITSUBISHI LS-120, MF357H-212MG	KME CD-ROM, UJDA110 (20X)	NEC FDD D1238T	BESTEC	1024x768
5	NEC 12.1" TFT	INTEL MMO 233 MHz	SEAGATE SECONDARY HDD, ST92130AG	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	800x600
6	LG 12.1" TFT	INTEL MMO 233 MHz	SANYO SECONDARY BATTERY UR18650-39	KME CD-ROM, UJDA110 (20X)	NEC FDD D1238T	BESTEC	800x600
7	SANYO 13.0" DSTN	INTEL MMO 166 MHz	IOMEGA ZIP Z100NB	KME CD-ROM, UJDA150 (24X)	TEAC FDD FD-05HG	DELTA	1024x768
8	SHARP 13.0" DSTN	INTEL MMO 166 MHz	FUJITSU MO M2541BE02	KME CD-ROM, UJDA110 (20X)	PRINTER	BESTEC	1024x768
9	LG 14.1" TFT	INTEL Pentium II 300 MHz	NEC FDD D1238T	KME CD-ROM, UJDA110 (20X)	PRINTER	DELTA ADP-50GB	1024x768

For more detailed features, please refer to ATTACHMENT 1 - TECHNICAL DESCRIPTION OF EUT and User's Manual.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	NOTEBOOK COMPUTER
Model No.	:	MP-979, MP-979P
Power Supply Type	:	DC 19V (from power adapter)
Power Cord	:	Nonshielded AC (1.8m) Nonshielded DC (1.8m)

Note: The EUT has two model names which were tested separately, and the data of the tests are recorded in this report.

This model was tested with either of the following two power adapters

1. DELTA power adaptor, model: ADP-50GB. Its rating:
   Input: 100~240Vac, 50~60 Hz, 1.5A
   Output: 19V, 2.64A

2. BESTEC power adaptor, model: BPA-501-19N. Its rating:
   Input: 100~240Vac, 50~60 Hz, 2A
   Output: 19Vdc, 2.63A

The EUT has an internal fax modem card installed in it.

The EUT was tested under the following configuration:

Test Mode	LCD Panel	CPU	FDD Driver Bay	CD-ROM DRIVE	Parallel port	Power Adapter	Resolution
1	NEC 14.1" TFT	INTEL MMO 266 MHz	IOMEGA ZIP Z100NB	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	1024x768
2	LG 14.1" TFT	INTEL MMO 266 MHz	FUJITSU MO M2541BE02	KME CD-ROM, UJDA110 (20X)	TEAC FDD FD-05HG	BESTEC	1024x768
3	PANASONIC 13.3" TFT	INTEL MMO 266 MHz	TEAC FDD FD-05HG	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	1024x768
4	LG 13.3" TFT	INTEL MMO 266 MHz	MITSUBISHI LS-120, MF357H-212MG	KME CD-ROM, UJDA110 (20X)	NEC FDD D1238T	BESTEC	1024x768
5	NEC 12.1" TFT	INTEL MMO 233 MHz	SEAGATE SECONDARY HDD, ST92130AG	KME CD-ROM, UJDA150 (24X)	PRINTER	DELTA	800x600
6	LG 12.1" TFT	INTEL MMO 233 MHz	SANYO SECONDARY BATTERY UR18650-39	KME CD-ROM, UJDA110 (20X)	NEC FDD D1238T	BESTEC	800x600
7	SANYO 13.0" DSTN	INTEL MMO 166 MHz	IOMEGA ZIP Z100NB	KME CD-ROM, UJDA150 (24X)	TEAC FDD FD-05HG	DELTA	1024x768
8	SHARP 13.0" DSTN	INTEL MMO 166 MHz	FUJITSU MO M2541BE02	KME CD-ROM, UJDA110 (20X)	PRINTER	BESTEC	1024x768
9	LG 14.1" TFT	INTEL Pentium II 300 MHz	NEC FDD D1238T	KME CD-ROM, UJDA110 (20X)	PRINTER	DELTA ADP-50GB	1024x768

For more detailed features, please refer to ATTACHMENT 1 - TECHNICAL DESCRIPTION OF EUT and User's Manual.

2.2 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories are used to form representative test configuration during the tests.

No	Product	Brand	Model No.	FCC ID.	I/O Cable
1	MONITOR	ADI	937G	BR8937G	Shielded Signal (1.5m) Nonshielded Power (1.8m)
2	TELEVISION	PANASONIC	BT-H1390Y	N/A	Shielded Signal (1m) Nonshielded Power (1.8m)
3	VCR	HITACHI	VT-S751AW	ABL0069	Shielded Signal (1.8m) Nonshielded Power (1.8m)
4	MOUSE	HP	M-S34	DZL211029	Shielded Signal (1.8m)
5	USB KEYBOARD	CHICONY	KU-8933	N/A	Shielded Signal (1.6m)
6	PRINTER (For Mode 1,3,5,8,9)	HP	2225C+	DSI6XU2225	Shielded Signal (1.2m) Nonshielded Power (1.9m)
7	MODEM	DATATRONICS	AT-1200CK	E2O5OV1200CK	Shielded Signal (1.2m) Nonshielded Power (1.9m)
8	MICROPHONE	CAROL	MUD-329	N/A	Nonshielded signal (3m)
9	CASSETTE RECORDER	KOIZUMI	NAD-0102	N/A	Nonshielded signal (2.8m)
10	CCD CAMERA	EASTMAN KODAK	DVC 300	N/A	Nonshielded signal (1.5m)
11	EARPHONE	GAMMA	LH-115	N/A	Nonshielded signal (1.2m)
12	JOYSTICK	LOGITECH	#3001	N/A	Shielded signal (2.1m)

Note: A 600 ohm resistor load was connected to the fax modem port of EUT via a telephone cable (1m).

2.3 TEST METHODOLOGY AND CONFIGURATION

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4-1992. Radiated testing was performed at a 3/10 meters open area test site. Please refer to the photos of test configuration in Item 5.

3. TEST INSTRUMENTS

3.1 TEST INSTRUMENTS (EMISSION)

RADIATED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
HP Spectrum Analyzer	8594A	3144A00308	Sept. 1, 1998
HP Preamplifier	8447D	2944A08119	Aug. 2, 1998
HP Preamplifier	8347A	3307A01088	Sept. 4, 1998
ROHDE & SCHWARZ TEST RECEIVER	ESVP	893496/030	July 17, 1998
SCHWARZBECK Tunable Dipole Antenna	VHA 9103 UHA 9105	E101051 E101055	Nov. 28, 1998
CHASE Bilog Antenna	CBL6112	2086	Dec. 26, 1998
EMCO Turn Table	1060	1195	N/A
EMCO Tower	1051	1163	N/A
Open Field Test Site	Site 2	ADT-R02	Sept. 26, 1998

Note: 1. The measurement uncertainty is less than +/- 3dB, which is calculated as per NAMA's document NIS81.

2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

CONDUCTED EMISSION MEASUREMENT

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ROHDE & SCHWARZ Test Receiver	ESH3	893495/006	July 23, 1998
ROHDE & SCHWARZ Spectrum Monitor	EZM	893787/013	July 24, 1998
ROHDE & SCHWARZ Artificial Mains Network	ESH3-Z5	839135/006	Aug. 1, 1998
EMCO-L.I.S.N.	3825/2	9204-1964	July 22, 1998
Shielded Room	Site 2	ADT-C02	N/A

Note: 1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per NAMA's document NIS81.

2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

3.2 LIMITS OF CONDUCTED AND RADIATED EMISSION

LIMIT OF RADIATED EMISSION OF CISPR 22

FREQUENCY (MHz)	Class A (at 10m) dBuV/m	Class B (at 10m) dBuV/m
30 - 230	40	30
230 - 1000	47	37

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	Uv/m	dBuV/m
Above 1000	300	49.5	500	54.0

Note: (1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

LIMIT OF CONDUCTED EMISSION OF CISPR 22

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz

(3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4. TEST RESULTS (EMISSION)

4.1 RADIO DISTURBANCE

Frequency Range	:	0.15 - 30 MHz (Conducted Emission)
		30 - 2000 MHz (Radiated Emission)
Input Voltage	:	120 Vac, 60 Hz
Temperature	:	23 ℃
Humidity	:	60 %
Atmospheric Pressure	:	1060 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -3.1 dB at 0.150 & 0.179 MHz Minimum passing margin of radiated emission: -2.2 dB at 200.01 MHz

4.1.1 EUT OPERATION CONDITION

1. Turn on the power of all equipments.
2. EUT runs a test program to enable all functions.
3. EUT read/write internal HDD and FDD.
4. EUT sends "H" messages to LCD display and external monitor. The LCD and external monitor display "H" patterns on their screen individually.
5. EUT sends "H" messages to printer and printer prints "H" messages on paper.
6. EUT sends "H" messages to modem.
7. EUT sends audio messages to earphone.
8. CCD camera captures images and sends image messages to EUT.
9. Repeat steps 3-9.

4.2 TEST DATA OF CONDUCTED EMISSION (A)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 1**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.150	49.00	-	51.50	-	66.00	56.00	-17.0	-	-14.5	-
0.224	42.40	-	44.60	-	62.64	52.64	-20.2	-	-18.0	-
0.845	31.40	-	30.90	-	56.00	46.00	-24.6	-	-25.1	-
4.073	41.00	-	37.30	-	56.00	46.00	-15.0	-	-18.7	-
7.616	32.40	-	37.90	-	60.00	50.00	-27.6	-	-22.1	-
22.090	36.20	-	32.80	-	60.00	50.00	-23.8	-	-27.2	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.3 TEST DATA OF CONDUCTED EMISSION (B)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 2**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.179	56.90	48.90	52.20	-	64.52	54.52	-7.6	-5.6	-12.3	-
0.240	51.60	-	46.00	-	62.10	52.10	-10.5	-	-16.1	-
1.023	40.30	-	42.50	-	56.00	46.00	-15.7	-	-13.5	-
2.833	42.60	-	43.20	-	56.00	46.00	-13.4	-	-12.8	-
6.029	41.30	-	43.10	-	60.00	50.00	-18.7	-	-16.9	-
21.320	36.80	-	37.70	-	60.00	50.00	-23.2	-	-22.3	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.4 TEST DATA OF CONDUCTED EMISSION (C)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 3**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.150	52.90	-	52.50	-	66.00	56.00	-13.1	-	-13.5	-
0.224	42.90	-	41.80	-	62.64	52.64	-19.7	-	-20.8	-
0.915	30.00	-	28.70	-	56.00	46.00	-26.0	-	-27.3	-
4.194	33.60	-	30.00	-	56.00	46.00	-22.4	-	-26.0	-
20.341	32.60	-	26.70	-	60.00	50.00	-27.4	-	-33.3	-
26.047	26.70	-	24.50	-	60.00	50.00	-33.3	-	-35.5	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.5 TEST DATA OF CONDUCTED EMISSION (D)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 4**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.179	56.80	49.70	55.50	49.40	64.52	54.52	-7.7	-4.8	-9.0	-3.1
0.240	51.80	-	48.20	-	62.10	52.10	-10.3	-	-13.9	-
1.136	37.70	-	42.10	-	56.00	46.00	-18.3	-	-13.9	-
3.048	41.80	-	42.80	-	56.00	46.00	-14.2	-	-13.2	-
4.725	41.50	-	42.50	-	56.00	46.00	-14.5	-	-13.5	-
19.065	39.80	-	39.00	-	60.00	50.00	-20.2	-	-21.0	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.6 TEST DATA OF CONDUCTED EMISSION (E)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 5**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.150	53.00	-	52.20	-	66.00	56.00	-13.0	-	-13.8	-
0.224	41.00	-	40.30	-	62.64	52.64	-21.6	-	-22.3	-
0.836	30.40	-	29.90	-	56.00	46.00	-25.6	-	-26.1	-
4.262	34.50	-	33.20	-	56.00	46.00	-21.5	-	-22.8	-
7.616	34.30	-	36.10	-	60.00	50.00	-25.7	-	-23.9	-
28.000	29.30	-	29.90	-	60.00	50.00	-30.7	-	-30.1	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.7 TEST DATA OF CONDUCTED EMISSION (F)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 6**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.179	59.40	50.00	53.70	-	64.52	54.52	-5.1	-4.5	-10.8	-
0.297	47.80	-	44.10	-	60.32	50.32	-12.5	-	-16.2	-
0.836	37.70	-	41.00	-	56.00	46.00	-18.3	-	-15.0	-
2.755	40.90	-	43.20	-	56.00	46.00	-15.1	-	-12.8	-
5.272	33.00	-	42.10	-	56.00	46.00	-23.0	-	-13.9	-
20.341	37.20	-	38.00	-	60.00	50.00	-22.8	-	-22.0	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.8 TEST DATA OF CONDUCTED EMISSION (G)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 7**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.150	53.90	-	53.60	-	66.00	56.00	-12.1	-4.8	-12.4	-3.1
0.224	44.20	-	42.60	-	62.64	52.64	-18.4	-	-20.0	-
0.905	32.40	-	30.00	-	56.00	46.00	-23.6	-	-26.0	-
4.074	36.10	-	33.30	-	56.00	46.00	-19.9	-	-22.7	-
7.616	35.00	-	34.70	-	60.00	50.00	-25.0	-	-25.3	-
22.121	29.20	-	30.30	-	60.00	50.00	-30.8	-	-29.7	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.9 TEST DATA OF CONDUCTED EMISSION (H)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 8**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.179	58.30	49.60	53.30	-	64.52	54.52	-6.2	-4.9	-11.2	-
0.297	47.70	-	45.20	-	60.32	50.32	-12.6	-	-15.1	-
0.836	40.00	-	40.80	-	56.00	46.00	-16.0	-	-15.2	-
2.815	40.80	-	43.20	-	56.00	46.00	-15.2	-	-12.8	-
4.314	42.90	-	42.80	-	56.00	46.00	-13.1	-	-13.2	-
16.726	34.40	-	35.20	-	60.00	50.00	-25.6	-	-24.8	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.10 TEST DATA OF CONDUCTED EMISSION (I)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979P**

EUT CONFIGURATION: **MODE 9**

6 dB Band Width: 10 kHz

TEST PERSONNEL: John Liao

Freq.	L Level		N Level		Limit		Margin [dB (μV)]			
[MHz]	[dB (μV)]		[dB (μV)]		[dB (μV)]		L		N	
	QP	AV	QP	AV	QP	AV	QP	AV	QP	AV
0.156	55.20	-	53.20	-	65.57	55.57	-10.4	-	-12.4	-
0.227	46.50	-	44.50	-	62.56	52.56	-16.1	-	-18.1	-
0.969	33.70	-	32.70	-	56.00	46.00	-22.3	-	-23.3	-
4.101	41.50	-	35.50	-	56.00	46.00	-14.5	-	-20.5	-
6.120	40.20	-	41.70	-	60.00	50.00	-19.8	-	-18.3	-
22.482	43.80	-	43.50	-	60.00	50.00	-16.2	-	-16.5	-

Remarks:
1. "*": Undetectable
2. Q.P. and AV. are abbreviations of quasi-peak and average individually.
3. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
4. The emission level of other frequencies were very low against the limit.
5. Margin value = Emission level - Limit value

4.11 TEST DATA OF RADIATED EMISSION (A)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 1**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	8.0	14.5	22.5	30.0	-7.5
120.00	15.1	6.7	21.8	30.0	-8.2
133.36	14.5	9.8	24.3	30.0	-5.7
189.00	12.7	14.0	26.7	30.0	-3.3
200.03	13.3	10.3	23.6	30.0	-6.4
215.25	14.0	11.2	25.2	30.0	-4.8
233.83	14.9	11.2	26.1	37.0	-10.9
267.29	17.2	15.2	32.4	37.0	-4.6
467.76	22.6	7.7	30.3	37.0	-6.7
533.39	25.1	3.3	28.4	37.0	-8.6

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (A)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 1**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	16.4	23.8	30.0	-6.2
120.02	15.5	9.5	25.0	30.0	-5.0
189.01	13.1	13.9	27.0	30.0	-3.0
199.51	13.6	10.0	23.6	30.0	-6.4
200.02	13.6	13.1	26.7	30.0	-3.3
215.26	14.2	9.0	23.2	30.0	-6.8
267.31	16.3	13.9	30.2	37.0	-6.8
333.38	17.9	7.9	25.8	37.0	-11.2
467.76	22.1	7.1	29.2	37.0	-7.8
766.76	28.6	1.4	30.0	37.0	-7.0

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.12 TEST DATA OF RADIATED EMISSION (B)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 2**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	8.0	18.7	26.7	30.0	-3.3
109.61	14.0	11.6	25.6	30.0	-4.4
150.02	13.3	8.4	21.7	30.0	-8.3
187.92	12.6	14.3	26.9	30.0	-3.1
189.00	12.7	12.0	24.7	30.0	-5.3
199.49	13.3	10.6	23.9	30.0	-6.1
221.84	14.3	10.4	24.7	30.0	-5.3
267.29	17.2	16.5	33.7	37.0	-3.3
333.36	18.7	8.8	27.5	37.0	-9.5

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (B)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 2**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	7.4	19.2	26.6	30.0	-3.4
109.61	13.1	10.9	24.0	30.0	-6.0
150.00	13.6	12.5	26.1	30.0	-3.9
180.01	12.6	10.3	22.9	30.0	-7.1
187.91	13.0	13.8	26.8	30.0	-3.2
189.01	13.1	12.6	25.7	30.0	-4.3
199.48	13.6	8.3	21.9	30.0	-8.1
200.00	13.6	12.6	26.2	30.0	-3.8
204.77	13.8	11.2	25.0	30.0	-5.0
210.00	14.0	12.7	26.7	30.0	-3.3
225.75	14.6	9.5	24.1	30.0	-5.9
315.00	17.6	11.4	29.0	37.0	-8.0

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.13 TEST DATA OF RADIATED EMISSION (C)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 3**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
83.24	9.3	15.8	25.1	30.0	-4.9
108.47	13.9	5.3	19.2	30.0	-10.8
119.90	15.1	9.3	24.4	30.0	-5.6
150.69	13.2	12.8	26.0	30.0	-4.0
176.24	12.2	11.0	23.2	30.0	-6.8
200.01	13.3	8.8	22.1	30.0	-7.9
222.36	14.4	11.0	25.4	30.0	-4.6
227.79	14.6	8.2	22.8	30.0	-7.2
467.79	22.6	6.9	29.5	37.0	-7.5

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (C)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 3**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.69	7.4	14.8	22.2	30.0	-7.8
108.48	12.9	10.6	23.5	30.0	-6.5
120.00	15.5	9.2	24.7	30.0	-5.3
176.23	12.5	12.7	25.2	30.0	-4.8
181.70	12.7	13.8	26.5	30.0	-3.5
189.77	13.1	10.3	23.4	30.0	-6.6
195.25	13.4	11.9	25.3	30.0	-4.7
200.00	13.6	12.8	26.4	30.0	-3.6
222.35	14.5	8.4	22.9	30.0	-7.1
227.79	14.7	11.9	26.6	30.0	-3.4
333.38	17.9	4.9	22.8	37.0	-14.2

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.14 TEST DATA OF RADIATED EMISSION (D)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 4**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	8.0	17.0	25.0	30.0	-5.0
162.74	12.3	5.0	17.3	30.0	-12.7
167.98	12.3	12.1	24.4	30.0	-5.6
178.49	12.2	8.0	20.2	30.0	-9.8
192.00	12.8	7.3	20.1	30.0	-9.9
200.01	13.3	12.2	25.5	30.0	-4.5
225.76	14.5	9.9	24.4	30.0	-5.6
267.30	17.2	14.4	31.6	37.0	-5.4
300.71	17.7	7.8	25.5	37.0	-11.5

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (D)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 4**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	19.4	26.8	30.0	-3.2
119.99	15.5	6.4	21.9	30.0	-8.1
131.24	15.3	7.6	22.9	30.0	-7.1
162.74	12.1	5.0	17.1	30.0	-12.9
178.49	12.6	10.3	22.9	30.0	-7.1
189.00	13.1	9.2	22.3	30.0	-7.7
199.50	13.6	12.0	25.6	30.0	-4.4
200.03	13.6	13.3	26.9	30.0	-3.1
215.25	14.2	9.9	24.1	30.0	-5.9
225.76	14.6	9.4	24.0	30.0	-6.0
766.76	28.6	1.3	29.9	37.0	-7.1

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.15 TEST DATA OF RADIATED EMISSION (E)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 5**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
80.00	8.7	12.1	20.8	30.0	-9.2
120.27	15.1	7.0	22.1	30.0	-7.9
180.41	12.2	9.8	22.0	30.0	-8.0
200.47	13.3	12.7	26.0	30.0	-4.0
208.48	13.7	11.9	25.6	30.0	-4.4
220.51	14.3	12.3	26.6	30.0	-3.4
228.53	14.7	8.2	22.9	30.0	-7.1
300.70	17.7	12.5	30.2	37.0	-6.8
360.82	19.7	13.2	32.9	37.0	-4.1
521.19	24.4	6.9	31.3	37.0	-5.7

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (E)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 5**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	17.4	24.8	30.0	-5.2
120.28	15.5	11.4	26.9	30.0	-3.1
140.31	15.1	6.7	21.8	30.0	-8.2
160.37	12.0	10.6	22.6	30.0	-7.4
180.42	12.6	11.5	24.1	30.0	-5.9
192.41	13.2	11.0	24.2	30.0	-5.8
200.03	13.6	13.2	26.8	30.0	-3.2
208.49	13.9	10.8	24.7	30.0	-5.3
220.50	14.4	12.6	27.0	30.0	-3.0
252.57	15.7	12.1	27.8	37.0	-9.2
300.68	17.5	16.0	33.5	37.0	-3.5
360.81	18.8	10.2	29.0	37.0	-8.0

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.16 TEST DATA OF RADIATED EMISSION (F)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 6**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	8.0	18.4	26.4	30.0	-3.6
120.09	15.1	9.5	24.6	30.0	-5.4
193.77	12.9	10.2	23.1	30.0	-6.9
200.01	13.3	11.2	24.5	30.0	-5.5
200.45	13.3	13.6	26.9	30.0	-3.1
207.15	13.6	7.1	20.7	30.0	-9.3
223.85	14.4	12.0	26.4	30.0	-3.6
316.87	18.2	11.2	29.4	37.0	-7.6
600.08	26.2	7.0	33.2	37.0	-3.8

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (F)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 6**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	18.4	25.8	30.0	-4.2
120.28	15.5	11.5	27.0	30.0	-3.0
136.98	15.2	9.0	24.2	30.0	-5.8
160.37	12.0	5.3	17.3	30.0	-12.7
193.78	13.3	11.2	24.5	30.0	-5.5
200.03	13.6	12.8	26.4	30.0	-3.6
200.46	13.6	13.3	26.9	30.0	-3.1
210.48	14.0	12.5	26.5	30.0	-3.5
223.84	14.5	11.4	25.9	30.0	-4.1
304.03	17.5	10.6	28.1	37.0	-8.9
600.05	24.9	7.8	32.7	37.0	-4.3

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.17 TEST DATA OF RADIATED EMISSION (G)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 7**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.69	8.0	12.6	20.6	30.0	-9.4
173.56	12.2	8.9	21.1	30.0	-8.9
184.40	12.4	10.7	23.1	30.0	-6.9
200.00	13.3	13.5	26.8	30.0	-3.2
211.52	13.8	10.0	23.8	30.0	-6.2
222.37	14.4	11.9	26.3	30.0	-3.7
227.79	14.6	9.4	24.0	30.0	-6.0
267.30	17.2	15.4	32.6	37.0	-4.4
534.59	25.1	5.0	30.1	37.0	-6.9

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (G)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 7**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	19.5	26.9	30.0	-3.1
128.00	15.4	6.0	21.4	30.0	-8.6
141.01	15.0	10.2	25.2	30.0	-4.8
173.56	12.4	12.0	24.4	30.0	-5.6
184.40	12.8	13.2	26.0	30.0	-4.0
189.83	13.1	12.5	25.6	30.0	-4.4
195.24	13.4	8.4	21.8	30.0	-8.2
200.00	13.6	12.5	26.1	30.0	-3.9
206.11	13.8	11.3	25.1	30.0	-4.9
211.52	14.1	11.4	25.5	30.0	-4.5
222.37	14.5	10.2	24.7	30.0	-5.3
600.08	24.9	4.6	29.5	37.0	-7.5

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.18 TEST DATA OF RADIATED EMISSION (H)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 8**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	8.0	18.0	26.0	30.0	-4.0
109.62	14.0	10.0	24.0	30.0	-6.0
131.88	14.5	9.8	24.3	30.0	-5.7
167.98	12.3	12.0	24.3	30.0	-5.7
200.02	13.3	13.5	26.8	30.0	-3.2
206.09	13.6	10.3	23.9	30.0	-6.1
222.37	14.4	10.8	25.2	30.0	-4.8
350.79	19.2	11.8	31.0	37.0	-6.0

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

FCC ID: E8HMP-979

TEST DATA OF RADIATED EMISSION (H)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979**

EUT CONFIGURATION: **MODE 8**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.68	7.4	18.8	26.2	30.0	-3.8
109.61	13.1	13.6	26.7	30.0	-3.3
120.00	15.5	10.1	25.6	30.0	-4.4
131.88	15.3	7.8	23.1	30.0	-6.9
172.27	12.4	10.2	22.6	30.0	-7.4
189.53	13.1	7.0	20.1	30.0	-9.9
197.32	13.5	10.8	24.3	30.0	-5.7
200.01	13.6	12.2	25.8	30.0	-4.2
210.01	14.0	10.3	24.3	30.0	-5.7
222.36	14.5	11.8	26.3	30.0	-3.7
600.08	24.9	6.1	31.0	37.0	-6.0

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

4.19 TEST DATA OF RADIATED EMISSION (I)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979P**

EUT CONFIGURATION: **MODE 9**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	8.0	13.6	21.6	30.0	-8.4
120.01	15.1	7.3	22.4	30.0	-7.6
133.64	14.4	11.4	25.8	30.0	-4.2
178.93	12.2	6.2	18.4	30.0	-11.6
200.01	13.3	12.5	25.8	30.0	-4.2
230.38	14.8	10.9	25.7	37.0	-11.3
233.87	14.9	7.8	22.7	37.0	-14.3
267.31	17.2	13.3	30.5	37.0	-6.5
294.00	17.6	8.2	25.8	37.0	-11.2
400.96	21.7	6.2	27.9	37.0	-9.1

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

TEST DATA OF RADIATED EMISSION (I)

EUT: **NOTEBOOK COMPUTER** MODEL: **MP-979P**

EUT CONFIGURATION: **MODE 9**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION AND BANDWIDTH: Quasi peak, 120 kHz (30-1000 MHz)
Peak, 1 MHz (1000 MHz-2000 MHz)

FREQUENCY RANGE: 30-1000 MHz MEASURED DISTANCE: 10 M

FREQUENCY RANGE: 1000-2000 MHz MEASURED DISTANCE: 3 M

TEST PERSONNEL: John Liao

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
66.67	7.4	20.3	27.7	30.0	-2.3
77.94	7.8	19.4	27.2	30.0	-2.8
136.50	15.2	9.9	25.1	30.0	-4.9
167.94	12.3	5.2	17.5	30.0	-12.5
189.00	13.1	11.7	24.8	30.0	-5.2
200.01	13.6	14.2	27.8	30.0	-2.2
202.04	13.7	7.4	21.1	30.0	-8.9
220.50	14.4	10.0	24.4	30.0	-5.6
225.74	14.6	7.3	21.9	30.0	-8.1
233.35	14.9	9.5	24.4	37.0	-12.6
267.31	16.3	11.1	27.4	37.0	-9.6
341.24	18.0	6.0	24.0	37.0	-13.0
346.51	18.0	9.2	27.2	37.0	-9.8
400.92	21.6	9.9	31.5	37.0	-5.5

REMARKS :
1. Emission level (dBuV/m) = Correction Factor(dB/m) +Meter Reading (dBuV).
2. Correction Factor(dB/m) = Ant. Factor(dB/m)+Cable loss(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level - Limit value

6. ATTACHMENT I - TECHNICAL DESCRIPTION OF EUT

Specifications:

* CPU	Tillamook with MMX 166-266 MHz (Intel MMO Module)
* Core Logic	Intel 430TX
* Memory	Base Memory 0 MB Memory Expand to 0-192 MB, 144-pin x 3, DIMM (EDO or SDRAM)
* Cache	Cache (L1/L2) 32kb / 512kb
* Display	Controller C&T 65555 Display Memory 4MB
* LCD	TFT or DSTN Color 12.1"/13.0"/13.3"/14.1" SVGA 800x600, XGA 1024x768 high colors
* Battery	Smart Battery compatible NiMH 4500mAH or Li-ion 4200mAH (same Primary/Secondary)
* Pointing device	Touchpad
* Power mgmt	Doze, Sleep, Suspend, Hibernation
* BIOS	Phoenix, Plug & play, 256 kb
* Disk Drives	HDD (excheable), 2.5", 12.7 & 17 mm height CD-ROM (exchangeable)
* SmartBay	FDD (1.44mB) / Zip (100MB) / MO 230 MB/ LS-120 (120MB) / 2nd HDD / 2nd Battery
* Keyboard	19mm Pitch
* Sound	Yamaha YMF 715
* I/O ports	NS 87338 controller Serial, Parallel, IrDA, CRT, Game, PS/2, 3 Audio jacks, 2 USB, Docking / Port connector, 2 Video Jack (Video in/out)
* PCMCIA	Type II x 2 or type II x 1 and Type III x 1 PCMCIA Card bus Controller, O2 Micro
* Power	Adapter 50W (min.), AC 100-240 V
* Options	Fax/modem (56kbps)
* Dimension	316x259x55.5mm (W x D x H) 3.4kg. with 12.1 TFT, Li-ion CD-ROM and FDD