



# FCC RADIO TEST REPORT

Applicant	VTIN TECHNOL	OGY Co., Limited
Address	ROOM 603, 6/F, BUILDING, 31 T SHA WAN, KOV	HANG PONT COMMERCIAL ONKIN STREET, CHEUNG /LOON
Equipment	Wireless Mouse	
Model No.	PC120A, MS-35	8
Trade Name	NEWMEN, Victs	ing
FCC ID	2AIL4-PC120A	

# I HEREBY CERTIFY THAT :

The sample was received on Oct. 19, 2017 and the testing was carried out on Oct. 30, 2017 at Cerpass Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of Cerpass Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Lara

Mark Ľiao EMC/RF B.U. Manager

Laboratory Accreditation:

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Cerpass Technology Corporation Test Laboratory
TAF LAB Code: 1439

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#### History of this test report

#### ORIGINAL

□ Additional attachment as following record:

Attachment No.	Issue Date	Description



# 1. Summary of Test Procedure and Test Results

# 1.1 Applicable Standards

ANSI C63.4: 2014

#### FCC Rules and Regulations Part 15 Subpart C §15.249

FCC Rule	. Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	N/A
15.209 15.249(a)(d)	. Radiated Emission	Pass
15.215(c)	. 20dB Bandwidth Measurement	Pass
15.249(d)	. Band Edges Measurement Data	Pass



# 2. Test Configuration of Equipment under Test

# 2.1 Feature of Equipment under Test

Product	Wireless Mouse
Test Model	PC120A, MS-358
Model Discrepancy	All models are identical to each other except for model name and
	trademark.
Frequency Range	2.4 GHz ISM radio band
Number of Channels	2.4GHz Wireless:34
	Bluetooth Low Energy:39
Modulation	FSK for 2.4GHz wireless
wouldion	GFSK for Bluetooth low energy
Antonno Typo	PCB Antenna /0dBi for 2.4GHz Wireless
Antenna Type	PCB Antenna /-0.55dBi for Bluetooth low energy
Power Supply Rating	DC 1.5V by battery (AA 1.5V)

Note: for more details, please refer to the User's manual of the EUT.

## 2.2 Carrier Frequency of Channels

Channel	Frequency(MHz)	Channel	Frequency(MHz)
*01	2408	18	2442
02	2410	19	2444
03	2412	20	2446
04	2414	21	2448
05	2416	22	2450
06	2418	23	2452
07	2420	24	2454
08	2422	25	2456
09	2424	26	2458
10	2426	27	2460
11	2428	28	2462
12	2430	29	2464
13	2432	30	2466
14	2434	31	2468
15	2436	32	2470
16	2438	33	2472
*17	2440	*34	2474

Note: Channels remarked \* are selected to perform test.

#### 2.3 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
- b. The complete test system included support units and EUT for the RF test.
- c. The EUT had been tested under operating condition
- EUT staying in continuous transmitting mode was programmed. Channel Low (2408MHz), Channel Mid (2440MHz) and Channel High (2474MHz) were chosen for full testing.



# 2.4 Description of Test System

The EUT has been tested as an independent unit together without any other necessary accessories or support units.



# 2.5 General Information of Test

		Cerpass Technology Corporation Test Laboratory
		Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City
	Test Site	33848, Taiwan (R.O.C.)
		Tel:+886-3-3226-888
$\square$		Fax:+886-3-3226-881
		Address: No.68-1, Shihbachongsi, Shihding Township,
		New Taipei City 223, Taiwan, R.O.C.
		Tel: +886-2-2663-8582
	FCC	TW1079, TW1061,390316, 228391, 641184
	IC	4934E-1, 4934E-2
		T-2205 for Telecommunication Test
	VCCI	C-4663 for Conducted emission test
	1001	R-3428, R-4218 for Radiated emission test
		G-812, G-813 for radiated disturbance above 1GHz
Frequency Range Investigated:		Conducted: from 150kHz to 30 MHz
		Radiation: from 30 MHz to 25000MHz
Tost Distanco:		The test distance of radiated emission from antenna to
Test Distance:		EUT is 3 M.



Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Test Receiver	R&S	ESCI	100853	2017.02.14	2018.02.13
Preamplifier	HP	8447F	3113A0591 5	2017.02.14	2018.02.13
Loop Antenna	R&S	HFH2-Z2	100150	2016.10.24	2017.10.23
Horn Antenna	EMCO	3116	31974	2017.02.18	2018.02.17
Ultra Broadband Antenna	SCHAFFNER	CBL6112D	22241	2017.02.14	2018.02.13
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	9170-347	2017.05.07	2018.05.06
Preamplifier	COM-POWER	PA-840	711885	2017.03.22	2018.03.21
Broad-Band Horn Antenna	Sunol	DRH-118	A072913	2017.09.22	2018.09.21
EXA Signal Analyzer	Agilent	N9020A	US462202 90	2017.05.26	2018.05.25
Temperature/ Humidity Meter	mingle	ETH529	N/A	2017.02.14	2018.02.13

# 3. Test Equipment and Ancillaries Used for Tests



# 4. Antenna Requirements

#### 4.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### 4.2 Antenna Construction and Directional Gain

Antenna	Peak Gain	
DCD entenne	0dBi for 2.4GHz Wireless	
PCD antenna	-0.55dBi for Bluetooth low energy	



# 5. Test of AC Power Line Conducted Emission

#### 5.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB µ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

\*Decreases with the logarithm of the frequency.

#### 5.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



# 5.3 Typical Test Setup



# 5.4 Test Result and Data

Not applicable since the EUT supplied by battery.

# 6. Test of Spurious Emission (Radiated)

## 6.1 Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2014. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions for unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance Meters	Radiated (µ V / M)	Radiated (dB µ V/ M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the below table.

Frequency (MHz)	Distance Meters	Radiated (dB μ V/ M)
30-230	10	30
230-1000	10	37

## 6.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- i. "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.



# 6.3 Typical Test Setup















## 6.4 Test Result and Data (30MHz ~ 1GHz)

Power	:	DC 1.5V	Temperature	:	24 °C
Test Mode	•••	TX Mode	Humidity	:	54 %
Test date	••	Oct. 28, 2017	Atmospheric Pressure	:	1010 hpa

Frequency	AntPol.	Correct	Reading	Measure	Limit 3m	Safe	Detector
(MHz)	H/V	Factor	level	Level	(dBuV/m)	Margin	mode
		(dB)	(dBuV)	(dBuV/m)		(dB)	(PK/QP)
30.0000	Н	-3.01	26.33	23.32	40.00	-16.68	peak
132.8199	Н	-9.28	30.14	20.86	43.50	-22.64	peak
207.5099	Н	-9.50	38.17	28.67	43.50	-14.83	peak
275.4100	Н	-8.94	46.92	37.98	46.00	-8.02	peak
692.5099	Н	-1.21	30.12	28.91	46.00	-17.09	peak
760.4099	Н	1.78	25.54	27.32	46.00	-18.68	peak
30.0000	V	-3.01	25.21	22.20	40.00	-17.80	peak
132.8200	V	-9.28	32.71	23.43	43.50	-20.07	peak
207.5100	V	-9.50	33.45	23.95	43.50	-19.55	peak
275.4100	V	-8.94	40.39	31.45	46.00	-14.55	peak
621.7000	V	-1.63	28.49	26.86	46.00	-19.14	peak
693.4800	V	-1.20	34.73	33.53	46.00	-12.47	peak

Note: Level = Reading + Factor

Margin = Level – Limit



# 6.5 Test Result and Data (1GHz ~ 25GHz)

Power	:	DC 1.5V	Temperature		24 °C
Test Mode		TX-2408MHz	Humidity	:	54 %
Test date	:	Oct. 28, 2017	Atmospheric Pressure	:	1010 hpa

Frequency	AntPol.	Correct	Reading	Measure	Limit 3m	Safe	Detector
(MHz)	H/V	Factor	level	Level	(dBuV/m)	Margin	mode
		(dB)	(dBuV)	(dBuV/m)		(dB)	(PK/QP)
3380.000	Н	2.77	40.79	43.56	74.00	-30.44	peak
4371.667	Н	7.01	37.92	44.93	74.00	-29.07	peak
4853.333	Н	8.32	38.70	47.02	74.00	-26.98	peak
5675.000	Н	9.45	38.16	47.61	74.00	-26.39	peak
6383.333	Н	10.41	37.86	48.27	74.00	-25.73	peak
7233.333	Н	12.99	37.25	50.24	74.00	-23.76	peak
3380.000	V	2.77	40.77	43.54	74.00	-30.46	peak
3606.667	V	3.76	39.28	43.04	74.00	-30.96	peak
4825.000	V	8.27	38.50	46.77	74.00	-27.23	peak
5675.000	V	9.45	38.45	47.90	74.00	-26.10	peak
6213.333	V	10.35	37.02	47.37	74.00	-26.63	peak
7148.333	V	12.66	37.06	49.72	74.00	-24.28	peak

Note: Level = Reading + Factor Margin = Level – Limit



0

Power	:	DC 1.5V	Temperature :	24 °C
Test Mode		TX-2440MHz	Humidity :	54 %
Test date	•••	Oct. 28, 2017	Atmospheric Pressure :	1010 hpa

Frequency	AntPol.	Correct	Reading	Measure	Limit 3m	Safe	Detector
(MHz)	H/V	Factor	level	Level	(dBuV/m)	Margin	mode
		(dB)	(dBuV)	(dBuV/m)		(dB)	(PK/QP)
3521.667	Н	3.47	39.65	43.12	74.00	-30.88	peak
4286.667	Н	6.57	38.04	44.61	74.00	-29.39	peak
4796.667	Н	8.22	37.97	46.19	74.00	-27.81	peak
6100.000	Н	10.30	37.79	48.09	74.00	-25.91	peak
6610.000	Н	10.82	37.64	48.46	74.00	-25.54	peak
7120.000	Н	12.55	37.72	50.27	74.00	-23.73	peak
3578.333	V	3.67	39.71	43.38	74.00	-30.62	peak
4485.000	V	7.58	37.43	45.01	74.00	-28.99	peak
4995.000	V	8.59	38.02	46.61	74.00	-27.39	peak
5561.667	V	9.17	39.35	48.52	74.00	-25.48	peak
6581.667	V	10.72	37.89	48.61	74.00	-25.39	peak
7205.000	V	12.88	38.19	51.07	74.00	-22.93	peak

Note: Level = Reading + Factor Margin = Level – Limit



0

Power	:	DC 1.5V	Temperature :	24 °C
Test Mode		TX-2474MHz	Humidity :	54 %
Test date	•••	Oct. 28, 2017	Atmospheric Pressure :	1010 hpa

Frequency	AntPol.	Correct	Reading	Measure	Limit 3m	Safe	Detector
(MHz)	H/V	Factor	level	Level	(dBuV/m)	Margin	mode
		(dB)	(dBuV)	(dBuV/m)		(dB)	(PK/QP)
3521.667	Н	3.47	40.58	44.05	74.00	-29.95	peak
4145.000	Н	5.85	38.11	43.96	74.00	-30.04	peak
4825.000	Н	8.27	37.17	45.44	74.00	-28.56	peak
5278.333	Н	8.83	37.64	46.47	74.00	-27.53	peak
6638.333	Н	10.91	38.03	48.94	74.00	-25.06	peak
7091.667	Н	12.44	37.21	49.65	74.00	-24.35	peak
2331.667	V	-3.30	45.18	41.88	74.00	-32.12	peak
3068.333	V	1.13	40.75	41.88	74.00	-32.12	peak
4343.333	V	6.86	37.55	44.41	74.00	-29.59	peak
4711.667	V	8.06	37.84	45.90	74.00	-28.10	peak
5675.000	V	9.45	38.64	48.09	74.00	-25.91	peak
7148.333	V	12.66	37.10	49.76	74.00	-24.24	peak

Note: Level = Reading + Factor Margin = Level – Limit



# 7. 20dB Bandwidth Measurement Data

## 7.1 Test Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in § 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

#### 7.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 30 KHz and VBW to 100KHz.
- c. The 20 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

#### 7.3 Test Setup Layout



## 7.4 Test Result and Data

Power :	DC 1.5V	Temperature :	24 °C
Test Mode	TX-Mode	Humidity :	54 %
Test date :	Oct. 28, 2017	Atmospheric Pressure :	1010 hpa

Channel	Frequency (MHz)	20dB Bandwidth (KHz)
Low	2408	3270.00
Mid	2440	3171.00
High	2474	2144.00



#### Channel: Low

Keysight Spectrum Analyzer - Occupied BW				
x dB -20.00 dB		SENSE:INT Center Freq: 2.408000	ALIGN AUTO	04:23:06 PM Oct 28, 2017 Radio Std: None
	₩IFGain:Low	. Trig: Free Run #Atten: 10 dB	Avg Hold: 10/10	Radio Device: BTS
15 dB/div Ref 20.00 dBm	۱ 		1	
10.0				
-25.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	"www" " " www"	www.man.	- American happy
-40.0 pray				
-70.0				
-100				
Center 2.408 GHz #Res BW 30 kHz		#VBW 100 k	Hz	Span 5 MHz Sweep 5.333 ms
Occupied Bandwidt	h	Total Power	8.83 dBm	
3.2	2247 MHz			
Transmit Freq Error	573.73 kHz	<b>OBW Power</b>	99.00 %	
x dB Bandwidth	3.270 MHz	x dB	-20.00 dB	
MSG			STATUS	

#### Channel: Mid

🊺 Keysight Sp	ectrum Analyzer - Occupied BW	1			
(XI RL Center F	RF 50 Ω AC	GH7	SENSE:INT Center Freg: 2.4400000	ALIGN AUTO	04:23:44 PM Oct 28, 2017 Radio Std: None
Center 1		#IFGain:Low		Avg Hold: 10/10	Radio Device: BTS
15 dB/div Log -10.0 -25.0 -40.0	Ref 20.00 dBn			- Convillent of the	man Man Man and an and an and an and an
-70.0					
Center 2 #Res BW	.44 GHz 30 kHz		#VBW 100 k	Hz	Span 5 MHz Sweep   5.333 ms
Occu	pied Bandwidt 3.	<sup>h</sup> 1786 MHz	Total Power	8.60 dBm	
Transı x dB E	mit Freq Error Bandwidth	544.72 kHz 3.171 MHz	OBW Power x dB	99.00 % -20.00 dB	
MSG				STATUS	



#### Channel: High

🎉 Keysight Spectrum Ar	nalyzer - Occupied	BW							
	50 Ω AC			SENSE:INT Center Fre	a: 2.474000	ALIGN AUTO		04:24:10 Radio Std: N	PM Oct 28, 2017
	.4740000	// UN2 /		⊶ Trig: Free #Atten: 10	Run dB	Avg Hold:>	10/10	Radio Devic	e: BTS
15 dB/div R	ef 20.00 dE	3m							
Log									
-10.0				h	h	M_			
25.0		, k	hum	- www.	Vun	1 m	n .		
-40.0	$\mathcal{M}$	- mark					.41		m
-55.0	v	10						www v	· "hand
-55.0									
-85.0									
-100									
-115									
Center 2.474 C #Res BW 30 k	SHz Hz			#VE	3W 100 k	Hz		S Sweep	pan 5 MHz 5.333 ms
Occupied	Bandwid	dth		Total P	ower	8.08 di	Зm		
	2	2.2229	MHz						
Transmit F	req Error	16.4	419 kHz	OBW P	ower	99.00	%		
x dB Bandv	vidth	2.1	44 MHz	x dB		-20.00	dB		
MSG						STATUS			



# 8. Band Edges Measurement

#### 8.1 Test Limit

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

## 8.2 Test Procedure

- a) The EUT was placed on a rotatable table top 0.8 meter above ground.
- b) The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c) The table was rotated 360 degrees to determine the position of the highest radiation.
- d) The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
- e) The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
- f) The band edges was measured and recorded.

# 8.3 Test Setup Layout

Above 1GHz Test Setup





#### 8.4 Restrict band emission Measurement Data

Power	:	DC 1.5V	Temperature		24 °C
Test Mode		TX-2408MHz	Humidity	:	54 %
Test date		Oct. 28, 2017	Atmospheric Pressure	:	1010 hpa

#### VERTICAL

No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
1	2385.500	-3.07	58.07	55.00	74.00	-19.00	peak
2	2385.500	-3.07	37.58	34.51	54.00	-19.49	AVG
3	2390.000	-3.05	51.64	48.59	74.00	-25.41	peak
4	2390.000	-3.05	29.59	26.54	54.00	-27.46	AVG
5	2395.750	-3.03	61.54	58.51	74.00	-15.49	peak
6	2395.750	-3.03	43.83	40.80	54.00	-13.20	AVG
7	2400.000	-3.01	53.01	50.00	74.00	-24.00	peak
8	2400.000	-3.01	35.62	32.61	54.00	-21.39	AVG
9	2407.750	-2.98	90.01	87.03	114.00	-26.97	peak
10	2407.750	-2.98	69.53	66.55	94.00	-27.45	AVG

#### HORIZONTAL

No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
1	2385.750	-3.07	51.64	48.57	74.00	-25.43	peak
2	2385.750	-3.07	33.67	30.60	54.00	-23.40	AVG
3	2390.000	-3.05	41.91	38.86	74.00	-35.14	peak
4	2390.000	-3.05	26.53	23.48	54.00	-30.52	AVG
5	2396.750	-3.02	56.68	53.66	74.00	-20.34	peak
6	2396.750	-3.02	39.56	36.54	54.00	-17.46	AVG
7	2400.000	-3.01	52.61	49.60	74.00	-24.40	peak
8	2400.000	-3.01	35.61	32.60	54.00	-21.40	AVG
9	2407.500	-2.98	85.02	82.04	114.00	-31.96	peak
10	2407.500	-2.98	62.59	59.61	94.00	-34.39	AVG



Power	:	DC 1.5V	Temperature	:	24 °C
Test Mode		TX-2474MHz	Humidity	:	54 %
Test date	:	Oct. 28, 2017	Atmospheric Pressure	:	1010 hpa

VERTICAL

No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
1	2474.500	-2.69	86.86	84.17	114.00	-29.83	PEAK
2	2474.500	-2.69	65.34	62.65	94.00	-31.35	AVG
3	2483.500	-2.65	48.99	46.34	74.00	-27.66	PEAK
4	2483.500	-2.65	30.14	27.49	54.00	-26.51	AVG

HORIZONTAL

No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
1	2474.500	-2.69	82.03	79.34	114.00	-34.66	PEAK
2	2474.500	-2.69	60.38	57.69	94.00	-36.31	AVG
3	2483.500	-2.65	41.07	38.42	74.00	-35.58	PEAK
4	2483.500	-2.65	25.17	22.52	54.00	-31.48	AVG



# 9. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 - 0.11000	16.42000 – 16.42300	399.9 - 410.0	4.500 - 5.250
0.49500 - 0.505**	16.69475 – 16.69525	608.0 - 614.0	5.350 - 5.460
2.17350 - 2.19050	16.80425 – 16.80475	960.0 - 1240.0	7.250 – 7.750
4.12500 - 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 - 8.500
4.17725 – 4.17775	37.50000 - 38.25000	1435.0 – 1626.5	9.000 - 9.200
4.20725 – 4.20775	73.00000 - 74.60000	1645.5 – 1646.5	9.300 - 9.500
6.21500 - 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 - 138.00000	2200.0 - 2300.0	14.470 – 14.500
8.29100 - 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 - 8.36600	156.52475 – 156.52525	2483.5 - 2500.0	17.700 – 21.400
8.37625 - 8.38675	156.70000 – 156.90000	2655.0 - 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 - 3267.0	23.600 - 24.000
12.29000 - 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 - 285.00000	3345.8 – 3358.0	36.430 - 36.500
12.57675 – 12.57725	322.00000 - 335.40000	3600.0 - 4400.0	Above 38.6
13.36000 - 13.41000			

\*\*: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

## 9.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.