FCC ID: E5XKB7932MUF0310

EMC

TEST REPORT

REPORT NO. : F87070905
MODEL NO. : 7932M
DATE OF TEST : July 9, 1998

PREPARED FOR: BEHAVIOR TECH COMPUTER CORP.

ADDRESS : 12F, 18, SEC. 1, CHANG AN E. RD.,
TAIPEI, 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: July 29, 1998

Product	:	KEYBOARD
Trade Name	:	BTC
Model No.	:	7932M
Applicant	:	BEHAVIOR TECH COMPUTER CORP.
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 July 9, 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

PREPARED BY: Sharon Hsiung , DATE: 7/29/98
(Sharon Hsiung)

TESTED BY: Bruce Lu , DATE: 7/29/98
(Bruce Lu)

APPROVED BY: Mike Su , DATE: 7/29/98
(Mike Su)

ADVANCE DATA TECHNOLOGY CORPORATION

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2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product	:	KEYBOARD
Model No.	:	7932M
Power Supply	:	DC (from PC)
Data Cable	:	Shielded (1.7m)

Note: For more detailed features, please refer to manufacturer's specification or 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	PERSONAL COMPUTER	HP	D4572A	DoC Approved	Nonshielded Power (1.8m)
2	MONITOR	ADI	PD-959	DoC Approved	Shielded Signal (1.8m) Nonshielded Power (1.5m)
3	KEYBOARD	FORWARD	FDA-104GA	F4ZDA-104G	Shielded Signal (1.4m)
4	PRINTER	HP	2225C+	DSI6XU2225	Shielded Signal (1.4m)
5	MODEM	ACEEX	1414	IFAXDM1414	Shielded Signal (1.5m)
6	MOUSE	DEXIN	A2P800A	NIYA2P800A	Shielded Signal (1.5m)
7	VGA DISPLAY CARD	DIAMOND	STEALT 64	FTUPCI968524	N/A

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 an antenna to EUT distance of 10 m on an 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
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)

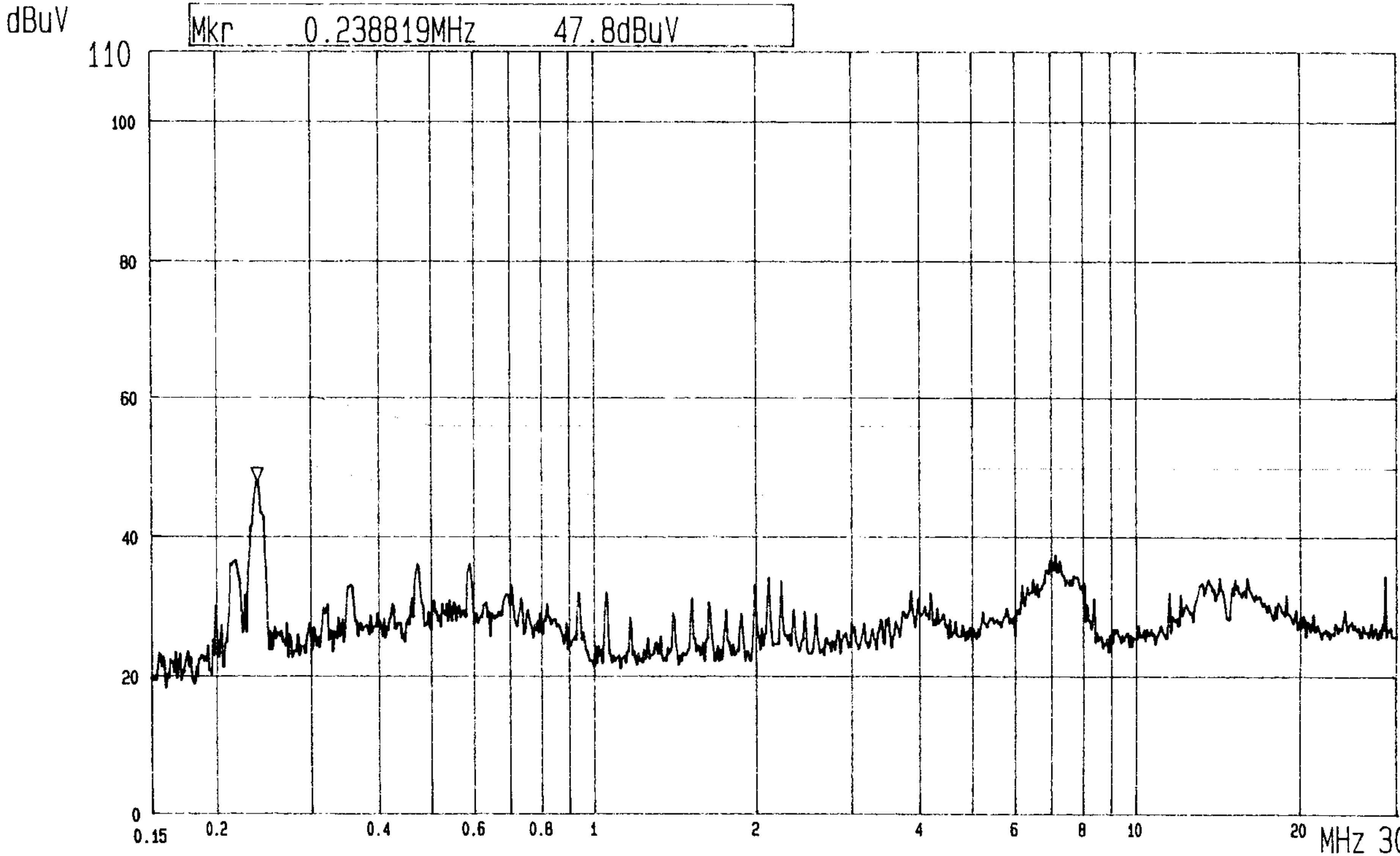
4.1 RADIO DISTURBANCE

Frequency Range	:	0.15 - 30 MHz (Conducted Emission)
		30 - 1000 MHz (Radiated Emission)
Input Voltage	:	120 Vac, 60 Hz
Temperature	:	25 ℃
Humidity	:	55 %
Atmospheric Pressure	:	997 mbar

TEST RESULT	Remarks
PASS	Minimum passing margin of conducted emission: -18.4 dB at 0.232 MHz Minimum passing margin of radiated emission: -2.8 dB at 48.00 MHz

4.1.1 EUT OPERATION CONDITION

1. Turn on the power of all equipments.
2. PC reads a test program to enable all functions.
3. PC sends "H" messages to monitor and monitor display "H" patterns on screen.
4. PC sends "H" messages to modem.
5. PC sends "H" messages to printer, and the printer prints them on paper.
6. Repeat steps 3-6.



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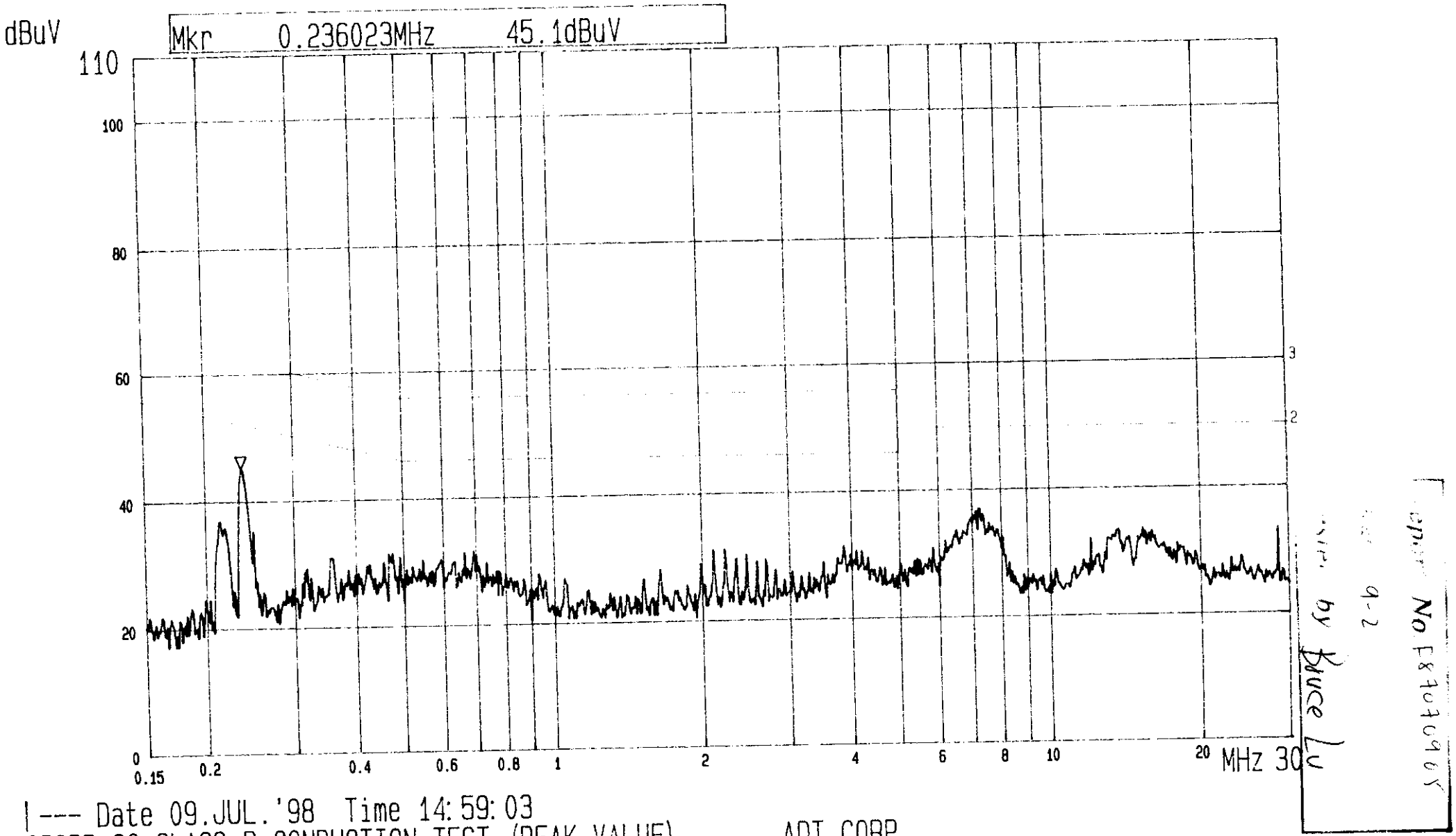
CISPR 22 CLASS B CONDUCTION TEST (PEAK VALUE) ADT CORP
MODEL : 7932M LISN: L

F87070905
9-1
Bruce Lu



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CISPR 22 CLASS B CONDUCTION TEST (PEAK VALUE) ADT CORP
MODEL : 7932M
LISN: N

4.1.3 TEST DATA OF RADIATED EMISSION

EUT: **KEYBOARD** MODEL: **7932M**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Horizontal

DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Bruce Lu

Frequency (MHz)	Correction Factor (dB/m)	Reading Data (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
36.01	16.8	7.4	24.2	30.0	-5.8
48.00	11.4	7.0	18.4	30.0	-11.6
71.98	8.2	8.4	16.6	30.0	-13.4
120.01	15.1	7.4	22.5	30.0	-7.5
144.02	13.8	6.1	19.9	30.0	-10.1
192.01	12.8	8.8	21.6	30.0	-8.4
240.03	15.2	10.2	25.4	37.0	-11.6
384.05	20.9	5.3	26.2	37.0	-10.8

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.

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TEST DATA OF RADIATED EMISSION

EUT: **KEYBOARD** MODEL: **7932M**

ANTENNA: CHASE BILOG CBL6112 POLARITY: Vertical

DETECTOR FUNCTION: Quasi-peak 6 dB BANDWIDTH: 120 kHz

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

TEST PERSONNEL: Bruce Lu

Frequency (MHz)	Correction Factor (dB/m)	Reading Data dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
36.00	15.7	7.0	22.7	30.0	-7.3
48.00	10.7	16.5	27.2	30.0	-2.8
72.00	7.3	8.2	15.5	30.0	-14.5
120.00	15.5	6.6	22.1	30.0	-7.9
192.02	13.2	9.0	22.2	30.0	-7.8
203.99	13.8	2.6	16.4	30.0	-13.6
228.02	14.7	1.8	16.5	30.0	-13.5
240.02	15.2	9.7	24.9	37.0	-12.1
384.03	20.5	4.6	25.1	37.0	-11.9
432.06	21.7	1.9	23.6	37.0	-13.4

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.