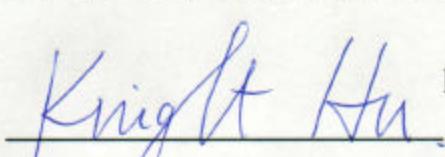
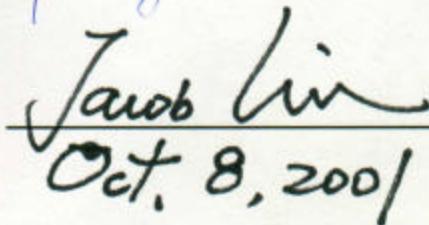
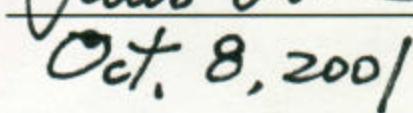


EXHIBIT B

Test Report

Report No.	S1115172
FCC ID	PN9GX-1
Specifications	FCC Part 15.109(g), CISPR 22, Class B
Test Method	ANSI C63.4 1992
Applicant address	4F, No. 12, Lane 94, Tsao Ti Wei, Shen Keng Hsiang, Taipei Hsien, Taiwan, R.O.C. 222
Applicant	SAINT SONG CORP.
Items tested	Portable PC
Model No.	GX-1 (Sample # S11171)
Results	Compliance (As detailed within this report)
Date	05/04/2001 (month / day / year)(Sample received) 09/24/2001 (month / day / year)(Tested)
Prepared by	 project engineer
Authorized by	 V.General Manager (Jacob Lin)
Issue date	 (month / day / year)
Modifications	None
Tested by	Training Research Co., Ltd.
Office at	2, Lane 194, Huan-Ho Street, Hsichih, Taipei Hsien 221, Taiwan
Open site at	No. 15, Lane 530, Pa-Lian RD., Sec. 1, Hsichih City, Taipei Hsien, Taiwan, R.O.C.

Conditions of issue :

- (1) This test report shall not be reproduced except in full, without written approval of TRC. And the test result contained within this report only relate to the sample submitted for testing.
- (2) This report must not be used by the client to claim product endorsement by NVLAP or any agency of U.S. Government.
- (3) This test report, measurements made by TRC are traceable to the NIST only Conducted and Radiated Method.

★ NVLAP LAB CODE: 200174-0

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Chapter 1 Introduction

Description of EUT:

The EUT is similar to a CD player. It weighs only 1.9 pounds. You can take it easily with you to the places you might work with. Cappuccino GX1 includes all the standard I/O ports like parallel port for connecting printers, and 2 USB ports for other devices.

This EUT included CPU Pentium III 650MHz, 64MB DRAM, 24X CD-ROM, 6GB HDD. I/O port: VGA port x 1, Serial port x 1, LPT port x 1, MODEM RJ-11 port x 1, USB port x 2, Phone jack x 1, MIC jack x 1, LAN port x 1, Mouse port x 1, Keyboard port x 1, S-Video Out jack x 1, Video Out jack x 1.

There are one CD-ROM (Quanta Storage Inc. SCR-242) and one Hard Disk (IBM, Travelstar, DJS-205) also able to be used in this EUT. These two devices has been meet the requirements.)

Test method:

Pretest was found that the emission of operating mode is worse than standby mode. So, The final test is made at the operating mode.

Before test set the modem and LAN to transmit and receive data. For radiation pretest, there were three kinds displays applied as following:

(A) VGA mode: uses three different resolutions: (1) 1600 x 1200, (2) 1024 x 768, (3) 800 x 600. The 1024 x 768 was the sorst case.

(B) V-terminal mode: use 800 x 600 resolution.

(C) S-terminal mode: use 800 x 600 resolution.

The emission of V and S terminal were not much different. The final test in OATS, we tested:

(A) VGA mode at 1024 x 768 resolution.

(B) V-terminal mode.

This adaptor is a full range power voltage. After verifying the 110V and 230V, found that it is not much different during radiation test. But during the conduction test, there were 110V and 230V test data supplied. Each of the data was tested at three different resolutions as radiation, the S and V terminal were terminated.

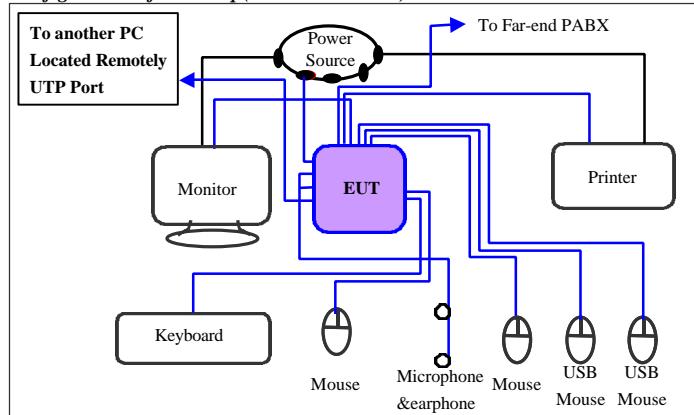
During testing, the EUT was operated at "transmitting" and "receiving" mode simultaneously.

The test placement as the photographs showed is the worst case emission placed. (If the emission is close to the ambient, the resolution BW and view resolution will be reduced and the data will be recorded by detection of maximum hold peak mode.)

The testing configuration of test setup is showing in the next page.

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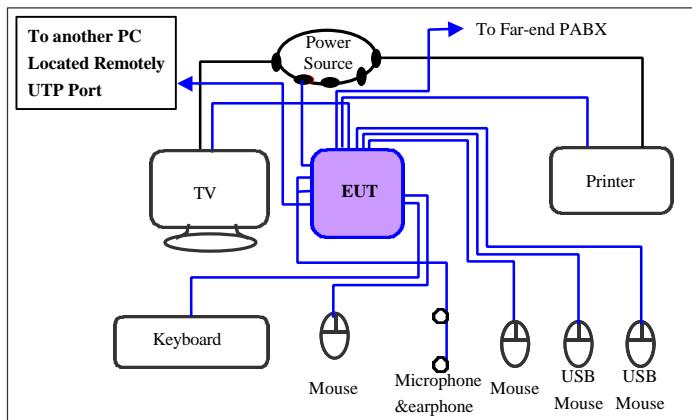
Connections:

EUT:

- *Serial Port --- a mouse with 1.9m long, shielded and no ferrite bead data cable.
- *Monitor Port --- a monitor with 1.5m length data cable.
- *Keyboard Port --- a keyboard with 1.7m length data cable.
- *Mouse Port --- a mouse with 1.8m long of data cable.
- *Printer port --- a printer with 1.80m length data cable.
- *USB Port A --- a mouse with 1.5m long, shielded and no ferrite bead data cable.
- *USB Port B --- a mouse with 1.5m long, shielded and no ferrite bead data cable.
- *Speak-Out Jack --- a pairs of Microphone&Earphone with 1.2m long wire.
- *MIC Jack --- a pairs of Microphone&Earphone with 1.2m long wire.
- *S-Video Out Jack --- with a 2m long non-shielded cable that terminal.
- *Video Out jack --- with a 2m long non-shielded cable that terminal.
- *Line Jack --- via a 15m long, non-shielded, no ferrite bead, RJ-11C cable to the PABX located remotely.
- *LAN Port --- via a 15m long, non-shielded, no ferrite bead, RJ-45 cable to another LAN card that installed in another PC located in far-end.
- *Power jack --- via a power cable is 1.48m long, non-shielded, with a ferrite bead that connect with a power adapter (Trade name: ILAN ELEC. LTD., Model No.: F17003B, Input: AC100-240~ 50-60Hz, 1.8A, Output: DC 18V, 3A) that via a 1.75long, non-shielded, with a ferrite bead power cable connect the power source.

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Connections:

EUT:

- *Serial Port --- a mouse with 1.9m long, shielded and no ferrite bead data cable.
- *Monitor Port --- with 1.5m length data cable that terminal.
- *Keyboard Port --- a keyboard with 1.7m length data cable.
- *Mouse Port --- a mouse with 1.8m long of data cable.
- *Printer port --- a printer with 1.80m length data cable.
- *USB Port A --- a mouse with 1.5m long, shielded and no ferrite bead data cable.
- *USB Port B --- a mouse with 1.5m long, shielded and no ferrite bead data cable.
- *Speak-Out Jack --- a pairs of Microphone&Earphone with 1.2m long wire.
- *MIC Jack --- a pairs of Microphone&Earphone with 1.2m long wire.
- *S-Video Out Jack --- with nothing.
- *Video Out jack --- via a 2m long non-shielded cable to the TV.
- *Line Jack --- via a 15m long, non-shielded, no ferrite bead, RJ-11C cable to the PABX located remotely.
- *LAN Port --- via a 15m long, non-shielded, no ferrite bead, RJ-45 cable to another LAN card that installed in another PC located in far-end.
- *Power jack --- via a power cable is 1.48m long, non-shielded, with a ferrite bead that connect with a power adapter (Trade name: ILAN ELEC. LTD., Model No.: F17003B, Input: AC100-240~ 50-60Hz, 1.8A, Output: DC 18V, 3A) that via a 1.75long, non-shielded, with a ferrite bead power cable connect the power source.

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List of support equipment

Conducted (Radiated) test:

Monitor : **Viewsonic P775**
Model No. : VCDTS21366
Serial No. : KP74620621
FCC ID : GSS17019
Power type : 110 ~ 240V 50/60 Hz, Switching
Power cord : Shielded, 1.8m long, No ferrite core
Data cable : Shielded, 1.50m long, with two ferrite cores (no ferrite core)

Keyboard : **HP**
Model No. : SK-2501K
Serial No. : MR80700789
FCC ID : GYUR38SK
Power type : By PC
Data cable : Shielded, 1.73m long, with ferrite core

Mouse : **HP**
Model No. : M-S34
Serial No. : LZB90714106
FCC ID : DZL211029
Power type : By PC
Power cord : Non-shielded, 1.88m long, No ferrite core

USB Mouse : **Logitech**
Model No. : M-BB48
Serial No. : LZA00354614, LZA0054616
FCC ID : Doc Approval
Power type : By PC
Power cord : Non-shielded, 1.88m long, No ferrite core

MIC. & earphone : **KOKA**
Model No. : N/A
Power type : Dynamic
Data cable : Non-shielded, 3m

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Mouse : **LOGITECH**
Model No. : M-M35
Serial No. : LZA71813927
FCC ID : DZL210365
Power type : By PC
Power cord : Non-shielded, 1.90m long, No ferrite core

Printer : **HP**
Model No. : C2642A
Serial No. : SG69A196GV
FCC ID : B94C2642X
Power type : 230 VAC, 50Hz
Power cord : Non-shielded, 2m long, no ferrite core
Data cable : Shielded, 1.84m long, no ferrite core

Modem : **ACEEX**
Model No. : DM-1414V
FCC ID : IFAXDM1414
Power type : 120VAC, 60Hz/ 9VAC, 1A
Power cord : Non-shielded, 1.9m long, no ferrite cord
Data cable : RS232, Shielded, 1.2m long, no ferrite core
RJ11C x 2, 7' long non-shielded, no ferrite core

PABX : **King Design**
Model No. : KD8705-A
Serial No. : GV101101186
Power type : 220 VAC 50Hz
Power cord : non-shielded, 1.8m long, no ferrite bead

Color TV : **SANYO 20" COLOR TELEVISION**
Model No. : ST-20S1
Serial No. : 0619202K92676
FCC ID : N/A
Power type : AC110V 60Hz 75W
Power cord : Non-shielded, 2.70m long, No ferrite core

*Report No.: S1115172
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Chapter 2 Conducted Emission Test**Test condition and setup:**

All the equipment is placed and setup according to the CISPR 22, CISPR 13. The EUT is assembled on a wooden table which is 80 cm high, is placed 40 cm from the back-wall which is a vertical conducting plane. One LISN is for EUT, the other LISN is for support equipment. They are all placed on the conductive ground. The EUT's LISN connect a line switch box for selecting L1 or L2, then connect to a preamplifier and spectrum.

The spectrum scans from 150KHz to 30MHz. Conducted emission levels are detected at max. peak mode . But if the max. peak mode failed or over average limit, it will be measured by average detection mode.

While testing, there is the worst-emission plot printed at peak detection mode, and there are more than 6 highest emissions relative to limit recorded. The plot is kept as the original data, not included in test report.

List of test Instrument :

Instrument Name	Model No.	Brand	Serial No.	Calibration Date	
				Last time	Next time
Spectrum analyzer	8594EM	H P	3710A00198	06/29/01	06/29/02
LISN (EUT)	3825/2	EMCO	9411-2284	06/10/01	06/10/02
LISN (Support E.)	3825/2	EMCO	9210-2007	05/31/01	05/31/02
Preamplifier	EQ3-006	TRC	-----	05/15/01	05/15/02
Line switch box	EQ3-007	TRC	-----	05/15/01	05/15/02

The level of confidence of 95% , the uncertainty of measurement of conducted emission is ± 2.4 dB .

Test Result: Pass (Appendix A)

Report No.: S1115172

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Conducted Test Placement: (Photographs)



Report No.: S1115172

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Chapter 3 Radiated emission test

Test condition and setup:

Pretest : Prior to the final test (OATS test) ,the EUT is placed in a shielded enclosure, and scan from 30MHz to 1GHz. This is done to ensure the radiation exactly emits from the EUT.

Final test: Final radiation measurement is made on a **10 - meter**, open-field test site. The EUT is placed on a nonconductive table that is 0.8m height, the top surface is 1.0 x 1.5 meter. The placement is according to ANSI C63.4 1992.

The spectrum is examined from 30 MHz to 1000 MHz measured by HP spectrum.

The M.E. whole range Antenna is used to measure frequency from 30 MHz to 1GHz.The final test is used the spectrum analyzer.

Measure more than six top marked frequencies generated from pretest by computer step by step at each frequency. The EUT is rotated 360 degrees, and antenna is raised and lowered from 1 to 4 meters to find the maximum emission levels. The antenna is used with both horizontal and vertical polarization.

Appropriated preamplifier that is made by TRC is used for improving sensitivity and precaution is taken to avoid overloading. The spectrum analyzer's 6dB bandwidth is set to 120 KHz, and the EUT is measured at quasi-peak mode.

If the emission is close to the frequency band of ambient, the tester will recheck the data and the corrected data will be written in the test data sheet. If the emission is just within the ambient, the data from shield room will be taken as the final data.

List of test Instrument :

Instrument Name	Model No.	Brand	Serial No.	Calibration Date	
				Last time	Next time
RECIVER	SCR3502	SCHAFFNER	210	12/01/00	12/01/01
Control Box	TWR95-4	TRC	C9001-2	12/01/00	12/01/01
Antenna	VULB 9160	M.E.	3063	06/26/01	06/23/02
Open test side (Antenna, Amplify, cable calibrated together)				05/15/01	05/15/02

The level of confidence of 95% , the uncertainty of measurement of radiated emission is ± 4.96 dB .

Test Result: Pass (Appendix B)

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Radiated Test Placement: (Photographs)



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Appendix A

Conducted Emission Test Result: (Test Mode: VGA 800 x 600 DPI)

Testing room: Temperature : 20 ° C Humidity : 72 % RH

Line 1

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
188.00	41.40	***.**	***.**	64.91	54.91	-13.51
248.00	37.68	***.**	***.**	63.20	53.20	-15.52
560.00	32.19	***.**	***.**	56.00	46.00	-13.81
3750.00	35.59	***.**	***.**	56.00	46.00	-10.41
3970.00	30.23	***.**	***.**	56.00	46.00	-15.77
23050.00	34.74	***.**	***.**	60.00	50.00	-15.26
23650.0	35.66	***.**	***.**	60.00	50.00	-14.34
24820.00	35.19	***.**	***.**	60.00	50.00	-14.81
25350.00	33.81	***.**	***.**	60.00	50.00	-16.19
26390.00	34.23	***.**	***.**	60.00	50.00	-15.77

Line 2

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
499.00	36.64	***.**	***.**	56.03	46.03	-9.38
624.00	36.15	***.**	***.**	56.00	46.00	-9.85
1063.00	34.23	***.**	***.**	56.00	46.00	-11.77
1127.00	36.07	***.**	***.**	56.00	46.00	-9.93
1249.00	33.93	***.**	***.**	56.00	46.00	-12.07
1439.00	35.55	***.**	***.**	56.00	46.00	-10.45
1507.00	33.87	***.**	***.**	56.00	46.00	-12.13
1635.00	34.92	***.**	***.**	56.00	46.00	-11.08
3490.00	34.70	***.**	***.**	56.00	46.00	-11.30
4050.00	34.42	***.**	***.**	56.00	46.00	-11.58

*The reading amplitudes are all under limit.

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Training Research Co., Ltd., TEL: 886-2-26461146, Fax: 886-2-26461778

Conducted Emission Test Result: (Test Mode: VGA 1024 x 768 DPI)

Testing room: Temperature : 20 ° C Humidity : 72 % RH

Line 1

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
188.00	41.17	***.**	***.**	64.91	54.91	-13.74
253.00	37.03	***.**	***.**	63.06	53.06	-16.03
560.00	30.49	***.**	***.**	56.00	46.00	-15.51
3350.00	31.96	***.**	***.**	56.00	46.00	-14.04
3490.00	30.16	***.**	***.**	56.00	46.00	-15.84
3920.00	30.88	***.**	***.**	60.00	50.00	-15.12
4140.00	29.71	***.**	***.**	60.00	50.00	-16.29
23050.00	35.00	***.**	***.**	60.00	50.00	-15.00
23650.00	35.32	***.**	***.**	60.00	50.00	-14.68
24300.00	35.03	***.**	***.**	60.00	50.00	-14.97

Line 2

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
502.00	36.43	***.**	***.**	56.00	46.00	-9.57
624.0	35.66	***.**	***.**	56.00	46.00	-10.34
749.00	35.13	***.**	***.**	56.00	46.00	-10.87
935.00	35.61	***.**	***.**	56.00	46.00	-10.39
1063.00	35.17	***.**	***.**	56.00	46.00	-10.83
1127.00	35.89	***.**	***.**	56.00	46.00	-10.11
1249.00	35.52	***.**	***.**	56.00	46.00	-10.48
1439.00	35.73	***.**	***.**	56.00	46.00	-10.27
1507.00	35.13	***.**	***.**	56.00	46.00	-10.87
1635.00	34.99	***.**	***.**	56.00	46.00	-11.01

*The reading amplitudes are all under limit.

Report No.: S1115172

Training Research Co., Ltd., TEL: 886-2-26461146, Fax: 886-2-26461778

Conducted Emission Test Result: (Test Mode: VGA 1600 x 1200 DPI)

Testing room: Temperature : 20 ° C Humidity : 72 % RH

Line 1

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
184.00	39.95	***.**	***.**	65.03	55.03	-15.08
191.00	39.61	***.**	***.**	64.83	54.83	-15.22
564.00	31.26	***.**	***.**	56.00	46.00	-14.74
3420.00	32.87	***.**	***.**	56.00	46.00	-13.13
3560.00	30.92	***.**	***.**	56.00	46.00	-15.08
3750.00	31.94	***.**	***.**	60.00	50.00	14.06
3970.00	32.78	***.**	***.**	60.00	50.00	-13.22
4140.00	32.21	***.**	***.**	60.00	50.00	-13.79
4450.00	31.09	***.**	***.**	60.00	50.00	-14.91
25520.00	34.74	***.**	***.**	60.00	50.00	-15.26

Line 2

Frequency (KHz)	READING AMPLITUDE			LIMIT		Margin (dB)
	Peak (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	Quasi-Peak (dBmV/m)	Average (dBmV/m)	
502.00	37.12	***.**	***.**	56.00	46.00	-8.88
628.00	36.31	***.**	***.**	56.00	46.00	-9.69
749.00	35.17	***.**	***.**	56.00	46.00	-10.83
941.00	36.07	***.**	***.**	56.00	46.00	-9.93
1127.00	35.77	***.**	***.**	56.00	46.00	-10.23
1249.00	35.39	***.**	***.**	56.00	46.00	-10.61
1374.00	35.11	***.**	***.**	56.00	46.00	-10.89
1507.00	35.22	***.**	***.**	56.00	46.00	-10.78
3630.00	35.14	***.**	***.**	56.00	46.00	-10.86
3860.00	37.15	***.**	***.**	56.00	46.00	-8.85

*The reading amplitudes are all under limit.

Report No.: S1115172

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Appendix B**Radiated Emission Test Result: (Test Mode: VGA 1024 x 768 DPI)**

Test Conditions:

Testing site : Temperature : 27 ° C Humidity : 88 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B Limit	Margin
MHz	dB μ V	m	degree	dB/m	dB μ V/m	dB μ V/m	dB

Horizontal

86.0243	32.13	4.01	104	-7.98	24.15	30.00	-5.85
300.7310	26.14	2.51	82	0.72	26.86	37.00	-10.14
500.8960	18.06	2.51	249	8.91	26.97	37.00	-10.03

Vertical

135.1800	24.05	4.00	133	-1.69	22.36	30.00	-7.64
144.0130	25.74	4.00	314	-2.26	23.48	30.00	-6.52
147.4686	24.77	1.00	359	-2.90	21.87	30.00	-8.13
159.7574	33.26	1.00	170	-5.26	28.00	30.00	-7.66
184.3356	25.27	1.00	328	-2.93	22.34	30.00	-7.66
720.0475	18.16	2.49	178	16.42	34.58	37.00	-2.42

Note:

1. Margin = Amplitude - limit, if margin is minus means under limit.

2. Corrected Amplitude = Reading Amplitude + Correction Factors

3. Correction factor = Antenna factor + (Cable Loss - Amplitude gain)

(For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

Report No.: S1115172**Training Research Co., Ltd., TEL: 886-2-26461146, Fax: 886-2-26461778**

Radiated Emission Test Result: (Test Mode: TV)

Test Conditions:

Testing site : Temperature : 27 ° C Humidity : 88 % RH

Frequency	Reading Amplitude	Ant. Height	Table	Correction Factors	Corrected Amplitude	Class B Limit	Margin
MHz	dB μ V	m	degree	dB/m	dB μ V/m	dB μ V/m	dB

Horizontal

86.0218	33.23	4.00	97	-7.98	25.25	30.00	-4.75
639.5000	20.10	0.98	329	14.33	34.43	37.00	-2.57

Vertical

48.0043	28.72	2.49	147	-5.96	22.76	30.00	-7.24
86.0235	35.61	2.49	235	-7.98	27.63	30.00	-2.37
159.7585	33.14	1.01	151	-5.26	27.88	30.00	-2.12
184.3368	24.61	1.01	331	-2.93	21.68	30.00	-8.32
639.5000	17.26	1.01	285	14.33	31.59	37.00	-5.41

Note:

1. Margin = Amplitude - limit, if margin is minus means under limit.

2. Corrected Amplitude = Reading Amplitude + Correction Factors

3. Correction factor = Antenna factor + (Cable Loss - Amplitude gain)

(For example : 30MHz correction factor = 15.5 + (-15.26) = 0.24 dB/m)

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