3.0 SYSTEM TEST CONFIGURATION

3.1 JUSTIFICATION

The system was configured for testing in a typical fashion (as a customer would normally use it). Worst case conducted emissions and radiated emissions are presented in 1024 X 768 @ 85 Hz and 1280 X 1024 @ 60 Hz modes.

The EUT's host computer was tested with the serial, parallel, mouse, and keyboard port attached to external peripherals. The monitor was investigated as powered from the wall outlet since there is no auxiliary power outlet. CPU Speed: 300 MHz

3.2 EUT EXERCISE SOFTWARE

The EUT exercise program used during radiated and conducted testing has been designed to exercise the various system components in a manner similar to a typical use. The software, contained on the hard disk drive, sequentially exercises each system component. 1) an H prints on the monitor, 2) an H prints on the printer 3) an H is sent to serial ports, 4) a file is read from the floppy diskette, 5) a file is read from the hard drive and any other hard drive present, 6) a file is read from the CD-ROM drive. In cases that implement the use of Universal Serial Bus (USB) ports, a looped batch program is initiated to render a continuous flow of data through the USB ports. The complete cycle takes less than one second and is repeated continually. Systems that utilize network cards are connected to a server and are configured to transmit and receive packets of data continuously. As the keyboard and mouse are strictly input devices, no data was transmitted to them during test. They are, however, continuously scanned for data input activity.

3.3 SPECIAL ACCESSORIES

The end user is advised that he/she should use the same type of cables as those mentioned in Table 1 of this test report.

3.4 CONFORMANCE STATEMENT

I, the undersigned, hereby declare that the equipment tested and referenced in this report conforms to the identified standard(s) as described in this attached test record. The modifications on the following page were made to the equipment during testing in order to achieve compliance with these standards.

Furthermore, there was no deviation from, additions to or exclusions from the ANSI C63.4 test methodology.

Signature: 

Date: October 12, 1998

Typed/Printed Name: Bruno Clavier

Position: Quality Manager
(NVLAP Signatory)

NVLAP *Accredited by the National Voluntary Accreditation Program for the specific scope of accreditation under Lab Code 20061-0.*

Note: This report may not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

RHEIN TECH LABORATORIES, INC.

Engineering and Testing for EMC and Safety Compliance

October 15, 1998

Modifications List for KD-1731T 17" Monitor

1. Added 0.1μF capacitor and 22μF coil on the 12V line of neck PCB.
2. Added 22μF capacitor on the 77V line.
3. Changed the capacitance of C236 from 10μF to 22μF.
4. Deleted C228, C250.
5. Added core on the focus wire of FBT.
6. Added 2 ground wire between CRT GND wire and neck shielded cover.
7. Used shielded power cord.
8. Added core on the locking wire of FBT.

Korea Data Systems Co., Ltd.
Seung-Gyo Yoo

360 Herndon Parkway, Suite 1400
Herndon, VA 20170
703 689-0368 FAX 703 689-2056 METRO 703 471-6441

AGX700

~~EO700+~~ Switching Transformer 출력 전압 Check Data

형명 : KP-1548R 구분: DPP
업체 : 삼화텍콤 특기사항: 함침 S298019-A (AA1-W4) USB Line = 0CA2

Layer Type

1. Normal 동작 시 출력 전압 (AC 100V INPUT) LOAD REGULATION 1998. 8. 19

	+55V LINE (V)		+6.3V LINE (V)		+77V LINE (V)		+22V LINE (V)		+15V LINE (V)		+7V LINE(V)	
	전압차:		전압차: V		전압차V		전압차: V		전압차: V		전압차: V	
	C/Hatch	White	C/Hatch	White	C/Hatch	White	C/Hatch	White	C/Hatch	White		
31KHz 640X480	5.40	5.66	6.41	6.35	12.80	11.75	22.50	22.42	13.93	13.87		
37.5KHz 640X480	5.46	5.67	6.44	6.39	12.82	11.96	22.48	22.41	13.99	13.93		
49.7KHz 832X624	5.27	5.37	6.43	6.37	12.84	11.80	22.49	22.41	13.99	13.86		
60KHz 1024X768	5.50	5.69	6.49	6.40	12.92	11.97	22.49	22.43	14.02	13.89	11.84	
68.7KHz 1024X768	5.38	5.62	6.48	6.39	12.83	11.92	22.49	22.43	13.99	13.84	11.87	11.85

1. Normal 동작 시 출력 전압 PATTERN:C/HATCH LINE REGULATION

	+55V LINE				+6.3V LINE				+22V LINE			
	전압차: V				전압차: V				전압차: V			
	90V	110V	240V	264V	90V	110V	240V	264V	90V	110V	240V	264V
31KHz 640X480	5.47	5.46	5.91	5.89	6.40	6.40	6.35	6.34	22.51	22.50	22.27	22.23
37.5KHz 640X480	5.47	5.44	5.98	5.91	6.43	6.43	6.38	6.37	22.51	22.48	22.23	22.20
49.7KHz 832X624	5.28	5.25	5.93	5.91	6.44	6.45	6.39	6.38	22.50	22.50	22.21	22.17
60KHz 1024X768	5.53	5.49	5.95	5.90	6.48	6.48	6.45	6.45	22.51	22.49	22.26	22.24
68.7KHz 1024X768	5.42	5.40	5.22	5.25	6.47	6.49	6.47	6.47	22.50	22.49	22.30	22.27

1. Normal 동작 시 출력 전압 PATTERN:C/HATCH LINE REGULATION

	+77V LINE				+15V LINE				+7V LINE			
	전압차: V				전압차: V				전압차: V			
	90V	110V	240V	264V	90V	110V	240V	264V	90V	110V	240V	264V
31KHz 640X480	12.89	12.89	11.95	11.81	13.96	13.94	13.82	13.81	11.69	11.67	11.54	11.53
37.5KHz 640X480	12.96	12.90	11.90	11.81	14.00	13.98	13.87	13.86	11.70	11.64	11.56	11.50
49.7KHz 832X624	12.87	12.83	11.61	11.62	14.00	13.99	13.86	13.86	11.72	11.63	11.57	11.50
60KHz 1024X768	13.01	12.92	12.09	12.16	14.02	14.04	13.97	13.97	11.75	11.62	11.58	11.49
68.7KHz 1024X768	12.90	12.81	12.25	12.28	13.98	14.01	14.01	14.01	11.76	11.62	11.59	11.48

5.0 CONDUCTED EMISSION DATA

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. If the conducted emissions exceed the average limit with the instrument set to the quasi-peak mode, then measurements are made in the average mode.

The conducted test was performed with the EUT exercise program loaded, and the emissions were scanned between 150 kHz to 30 MHz on the NEUTRAL SIDE and HOT SIDE, herein referred to as L1 and L2, respectively.

TABLE 2: CONDUCTED EMISSIONS 1024 X 768 @ 85 HZ

NEUTRAL SIDE (Line 1)

EMISSION FREQUENCY (MHz)	TEST DETECTOR (1)	ANALYZER READING (dBuV)	SITE CORRECTION FACTOR (dB)	EMISSION LEVEL (dBuV)	EN55022 / CISPR22 QUASI PEAK LIMIT (dBuV)	EN55022 / CISPR22 QUASI PEAK MARGIN (dBuV)	EN55022 / CISPR22 AVERAGE LIMIT (dBuV)	EN55022 / CISPR22 AVERAGE MARGIN (dBuV)
0.206	Pk	45.1	0.8	45.9	63.4	-17.5	53.4	-7.5
0.345	Pk	41.6	0.6	42.2	59.1	-16.9	49.1	-6.9
0.550	Pk	39.4	0.5	39.9	56.0	-16.1	46.0	-6.1
0.619	Pk	38.4	0.5	38.9	56.0	-17.1	46.0	-7.1
0.760	Pk	38.1	0.6	38.7	56.0	-17.3	46.0	-7.3
2.825	Pk	37.2	1.2	38.4	56.0	-17.6	46.0	-7.6
10.961	Pk	43.0	2.3	45.3	60.0	-14.7	50.0	-4.7
11.033	Pk	42.4	2.3	44.7	60.0	-15.3	50.0	-5.3
13.237	Qp	48.0	2.6	50.6	60.0	-9.4	50.0	0.6
13.237	Av	37.1	2.6	39.7	60.0	-20.3	50.0	-10.3
13.238	Pk	52.7	2.6	55.3	60.0	-4.7	50.0	5.3
23.786	Pk	48.8	3.2	52.0	60.0	-8.0	50.0	2.0
23.786	Qp	42.0	3.2	45.2	60.0	-14.8	50.0	-4.8
23.786	Av	35.3	3.2	38.5	60.0	-21.5	50.0	-11.5

(1)Pk = Peak; QP = Quasi-Peak; Av = Average

TEST PERSONNEL:

Signature: Billy D. Young **Date:** October 2, 1998

Typed/Printed Name: Billy D. Young

TABLE 3: CONDUCTED EMISSIONS CONTINUED 1024 X 768 @ 85 Hz

HOT SIDE (Line 2)

EMISSION FREQUENCY (MHz)	TEST DETECTOR (1)	ANALYZER READING (dBuV)	SITE CORRECTION FACTOR (dB)	EMISSION LEVEL (dBuV)	EN55022 / CISPR22 QUASI PEAK LIMIT (dBuV)	EN55022 / CISPR22 QUASI PEAK MARGIN (dBuV)	EN55022 / CISPR22 AVERAGE LIMIT (dBuV)	EN55022 / CISPR22 AVERAGE MARGIN (dBuV)
0.207	Pk	43.8	0.5	44.3	63.3	-19.0	53.3	-9.0
0.277	Pk	42.3	0.5	42.8	60.9	-18.1	50.9	-8.1
0.344	Pk	41.6	0.6	42.2	59.1	-16.9	49.1	-6.9
0.552	Pk	35.1	0.6	35.7	56.0	-20.3	46.0	-10.3
0.621	Pk	37.4	0.6	38.0	56.0	-18.0	46.0	-8.0
0.689	Pk	37.5	0.6	38.1	56.0	-17.9	46.0	-7.9
9.996	Pk	40.0	2.3	42.3	60.0	-17.7	50.0	-7.7
10.961	Pk	41.2	2.4	43.6	60.0	-16.4	50.0	-6.4
13.376	Pk	52.1	2.9	55.0	60.0	-5.0	50.0	5.0
13.376	Qp	47.4	2.9	50.3	60.0	-9.7	50.0	0.3
13.376	Av	32.4	2.9	35.3	60.0	-24.7	50.0	-14.7
15.855	Qp	43.9	3.4	47.3	60.0	-12.7	50.0	-2.7
15.855	Av	33.2	3.4	36.6	60.0	-23.4	50.0	-13.4
15.857	Pk	50.8	3.4	54.2	60.0	-5.8	50.0	4.2
16.064	Pk	50.1	3.4	53.5	60.0	-6.5	50.0	3.5
16.065	Qp	44.9	3.4	48.3	60.0	-11.7	50.0	-1.7
16.065	Av	34.0	3.4	37.4	60.0	-22.6	50.0	-12.6

(1)Pk = Peak; QP = Quasi-Peak; Av = Average

TEST PERSONNEL:

Signature: Billy D. Young **Date:** October 2, 1998

Typed/Printed Name: Billy D. Young

TABLE 4: CONDUCTED EMISSIONS 1280 X 1024 @ 60 Hz

NEUTRAL SIDE (Line 1)

EMISSION FREQUENCY (MHz)	TEST DETECTOR (1)	ANALYZER READING (dBuV)	SITE CORRECTION FACTOR (dB)	EMISSION LEVEL (dBuV)	EN55022 / CISPR22 QUASI PEAK LIMIT (dBuV)	EN55022 / CISPR22 QUASI PEAK MARGIN (dBuV)	EN55022 / CISPR22 AVERAGE LIMIT (dBuV)	EN55022 / CISPR22 AVERAGE MARGIN (dBuV)
0.321	Pk	42.1	0.6	42.7	59.7	-17.0	49.7	-7.0
0.513	Pk	37.2	0.5	37.7	56.0	-18.3	46.0	-8.3
0.578	Pk	37.0	0.5	37.5	56.0	-18.5	46.0	-8.5
0.642	Pk	37.9	0.5	38.4	56.0	-17.6	46.0	-7.6
0.708	Pk	38.5	0.6	39.1	56.0	-16.9	46.0	-6.9
1.286	Pk	37.3	0.8	38.1	56.0	-17.9	46.0	-7.9
13.232	Pk	53.4	2.6	56.0	60.0	-4.0	50.0	6.0
13.232	Qp	49.0	2.6	51.6	60.0	-8.4	50.0	1.6
13.232	Av	36.8	2.6	39.4	60.0	-20.6	50.0	-10.6
15.159	Pk	49.2	2.8	52.0	60.0	-8.0	50.0	2.0
15.159	Qp	47.3	2.8	50.1	60.0	-9.9	50.0	0.1
15.159	Av	32.1	2.8	34.9	60.0	-25.1	50.0	-15.1
16.060	Pk	52.2	3.0	55.2	60.0	-4.8	50.0	5.2
16.060	Qp	49.5	3.0	52.5	60.0	-7.5	50.0	2.5
16.060	Av	32.3	3.0	35.3	60.0	-24.7	50.0	-14.7
22.992	Pk	47.6	3.4	51.0	60.0	-9.0	50.0	1.0
22.992	Qp	44.8	3.4	48.2	60.0	-11.8	50.0	-1.8
22.992	Av	33.5	3.4	36.9	60.0	-23.1	50.0	-13.1

HOT SIDE (Line 2)

EMISSION FREQUENCY (MHz)	TEST DETECTOR (1)	ANALYZER READING (dBuV)	SITE CORRECTION FACTOR (dB)	EMISSION LEVEL (dBuV)	EN55022 / CISPR22 QUASI PEAK LIMIT (dBuV)	EN55022 / CISPR22 QUASI PEAK MARGIN (dBuV)	EN55022 / CISPR22 AVERAGE LIMIT (dBuV)	EN55022 / CISPR22 AVERAGE MARGIN (dBuV)
0.321	Pk	41.4	0.6	42.0	59.7	-17.7	49.7	-7.7
0.643	Pk	36.9	0.6	37.5	56.0	-18.5	46.0	-8.5
11.176	Pk	41.2	2.5	43.7	60.0	-16.3	50.0	-6.3
13.422	Pk	51.2	2.9	54.1	60.0	-5.9	50.0	4.1
13.422	Qp	48.7	2.9	51.6	60.0	-8.4	50.0	1.6
13.422	Av	32.6	2.9	35.5	60.0	-24.5	50.0	-14.5
15.867	Pk	51.2	3.4	54.6	60.0	-5.4	50.0	4.6
15.867	Qp	48.3	3.4	51.7	60.0	-8.3	50.0	1.7
15.867	Av	33.4	3.4	36.8	60.0	-23.2	50.0	-13.2
16.060	Pk	50.5	3.4	53.9	60.0	-6.1	50.0	3.9
16.060	Qp	47.6	3.4	51.0	60.0	-9.0	50.0	1.0
16.060	Av	32.7	3.4	36.1	60.0	-23.9	50.0	-13.9

(1)Pk = Peak; QP = Quasi-Peak; Av = Average

TEST PERSONNEL:

Signature: Billy D Young **Date:** October 2, 1998

Typed/Printed Name: Billy D. Young

6.0 RADIATED EMISSION DATA

The following data lists the significant emission frequencies, measured levels, correction factor (includes cable and antenna corrections), the corrected reading, plus the limit. Explanation of the Correction Factor is given in paragraph 6.1.

TABLE 5: RADIATED EMISSIONS 1024 x 768 @ 60 Hz

(Temperature: 74°F, Humidity: 11%)

EMISSION FREQUENCY (MHz)	ANTENNA POLARITY (H/V)	ANALYZER READING (dBuV) *	SITE CORRECTION FACTOR (dB/m)	EMISSION LEVEL (dBuV/m)	EN55022 / CISPR22 LIMIT (dBuV/m)	EN55022 / CISPR22 MARGIN (dBuV/m)
71.195	V	55.5	-30.4	25.1	30.0	-4.9
79.095	V	52.8	-31.1	21.7	30.0	-8.3
110.720	V	48.1	-24.5	23.6	30.0	-6.4
134.425	V	46.0	-25.1	20.9	30.0	-9.1
150.240	V	48.5	-26.5	22.0	30.0	-8.0
205.590	V	45.4	-23.7	21.7	30.0	-8.3

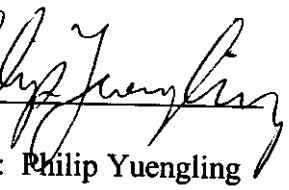
TABLE 6: RADIATED EMISSIONS 1280 x 1024 @ 60 Hz

(Temperature: 63°F, Humidity: 19%)

EMISSION FREQUENCY (MHz)	ANTENNA POLARITY (H/V)	ANALYZER READING (dBuV) *	SITE CORRECTION FACTOR (dB/m)	EMISSION LEVEL (dBuV/m)	EN55022 / CISPR22 LIMIT (dBuV/m)	EN55022 / CISPR22 MARGIN (dBuV/m)
54.240	V	46.2	-23.7	22.5	30.0	-7.5
63.277	V	48.7	-27.1	21.6	30.0	-8.4
72.319	V	53.7	-28.9	24.8	30.0	-5.2
81.365	V	52.2	-29.2	23.0	30.0	-7.0
108.467	V	48.5	-24.9	23.6	30.0	-6.4
126.531	V	47.9	-24.3	23.6	30.0	-6.4
135.568	V	46.5	-25.3	21.2	30.0	-8.8
153.642	V	49.8	-26.3	23.5	30.0	-6.5
198.827	V	44.0	-23.9	20.1	30.0	-9.9

All readings are quasi-peak, unless stated otherwise. See Appendix B for Radiated Test Methodology.

TEST PERSONNEL:

Signature: 

Date: October 2, 1998

Typed/Printed Name: Philip Yuengling

6.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FI(dBuV/m) = SAR(dBuV) + SCF(dB/m)$$

FI = Field Intensity
SAR = Spectrum Analyzer Reading
SCF = Site Correction Factor

The Site Correction Factor (SCF) used in the above equation is determined empirically, and is expressed in the following equation:

$$SCF(dB/m) = -PG(dB) + AF(dB/m) + CL(dB)$$

SCF = Site Correction Factor
PG = Pre-amplifier Gain
AF = Antenna Factor
CL = Cable Loss

The field intensity in microvolts per meter can then be determined according to the following equation:

$$FI(uV/m) = 10^{FI(dBuV/m)/20}$$

For example, assume a signal at a frequency of 125 MHz has a received level measured as 49.3 dBuV. The total Site Correction Factor (antenna factor plus cable loss minus preamplifier gain) for 125 MHz is -11.5 dB/m. The actual radiated field strength is calculated as follows:

$$49.3 \text{ dBuV} - 11.5 \text{ dB} = 37.8 \text{ dBuV/m}$$

$$10^{37.8/20} = 10^{1.89} = 77.6 \text{ uV/m}$$

7.0 PHOTOS OF EUT

APPENDIX B: Emissions Equipment List

DESCRIPTION	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. LAB
AMPLIFIER	HEWLETT PACKARD	11975A	2304A00348	TEST EQUITY
AMPLIFIER (S/A 1)	RHEIN TECH	PR-1040	N/A	RTL
AMPLIFIER (S/A 2)	RHEIN TECH	RTL2	N/A	RTL
AMPLIFIER (S/A 3)	RHEIN TECH	8447F	2944A03783	RTL
AMPLIFIER (S/A 4)	RHEIN TECH	8447D	2727A05397	RTL
BICONICAL/LOG ANTENNA 1	ANTENNA RESEARCH	LPB-2520	1037	LIBERTY LABS
BICONICAL/LOG ANTENNA 2	ANTENNA RESEARCH	LPB-2520	1036	LIBERTY LABS
FIELD SITE SOURCE	EMCO	4610	9604-1313	RTL
FILTER (ROOM 1)	SOLAR	8130	947305	RTL
FILTER (ROOM 2)	SOLAR	8130	947306	RTL
HARMONIC MIXER 1	HEWLETT PACKARD	11970K	2332A00563	TELOGY
HARMONIC MIXER 2	HEWLETT PACKARD	11970A	2332A01199	TELOGY
HORN ANTENNA 1	EMCO	3160-10	9606-1033	EMCO
HORN ANTENNA 2	EMCO	3160-9	9605-1051	EMCO
HORN ANTENNA 3	EMCO	3160-7	9605-1054	EMCO
HORN ANTENNA 4	EMCO	3160-8	9605-1044	EMCO
HORN ANTENNA 5	EMCO	3160-03	9508-1024	EMCO
LISN (ROOM 1/L1)	SOLAR	7225-1		ACUCAL
LISN (ROOM 1/L2)	SOLAR	7225-1		ACUCAL
LISN (ROOM 2/L1)	SOLAR	7225-1	900078	ACUCAL
LISN (ROOM 2/L2)	SOLAR	7225-1	900077	ACUCAL
PRE-AMPLIFIER	HEWLETT PACKARD	8449B OPT	3008A00505	TELOGY
QUASI-PEAK ADAPTER (S/A 1)	HEWLETT PACKARD	85650A	3145A01599	ACUCAL
QUASI-PEAK ADAPTER (S/A 2)	HEWLETT PACKARD	85650A	2811A01276	ACUCAL
QUASI-PEAK ADAPTER (S/A 3)	HEWLETT PACKARD	85650A	2521A00473	ACUCAL
QUASI-PEAK ADAPTER (S/A 4)	HEWLETT PACKARD	85650A	2521A01032	ACUCAL
RF PRESELECTOR (S/A 1)	HEWLETT PACKARD	85685A	3146A01309	ACUCAL
SIGNAL GENERATOR (HP)	HEWLETT PACKARD	8660C	1947A02956	ACUCAL
SIGNAL GENERATOR (WAVETEK)	WAVETEK	3510B	4952044	ACUCAL
SPECTRUM ANALYZER 1	HEWLETT PACKARD	8566B	3138A07771	ACUCAL
SPECTRUM ANALYZER 2	HEWLETT PACKARD	8567A	2841A00614	ACUCAL
SPECTRUM ANALYZER 4	HEWLETT PACKARD	8567A	2727A00535	ACUCAL
TUNABLE DIPOLE	EMCO	3121	274	LIBERTY LABS

APPENDIX C: Conducted and Radiated Test Methodology

The power line conducted emission measurements were performed in a Series 81 type shielded enclosure manufactured by Rayproof. The EUT was assembled on a wooden table 80 centimeters high. Power was fed to the EUT through a 50 ohm / 50 microhenry Line Impedance Stabilization Network (LISN). The EUT LISN was fed power through an A.C. filter box on the outside of the shielded enclosure. The filter box and EUT LISN housing are bonded to the ground plane of the shielded enclosure. A second LISN, the peripheral LISN, provides isolation for the EUT test peripherals. This peripheral LISN was also fed A.C. power. A metal power outlet box, which is bonded to the ground plane and electrically connected to the peripheral LISN, powers the EUT host peripherals.

The spectrum analyzer was connected to the A.C. line through an isolation transformer. The 50-ohm output of the EUT LISN was connected to the spectrum analyzer input through a Solar 400 kHz high-pass filter. The filter is used to prevent overload of the spectrum analyzer from noise below 400 kHz. Conducted emission levels were measured on each current-carrying line with the spectrum analyzer operating in the CISPR quasi-peak mode (or peak mode if applicable). The analyzer's 6 dB bandwidth was set to 9 kHz. No video filter less than 10 times the resolution bandwidth was used. Average measurements are performed in linear mode using a 10 kHz resolution bandwidth, a 1 Hz video bandwidth, and by increasing the sweep time in order to obtain a calibrated measurement. The emission spectrum was scanned from (150/450) kHz to 30 MHz. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in this report.

Before final measurements of radiated emissions were made on the open-field three/ten meter range; the EUT was scanned indoors at one and three meter distances. This was done in order to determine its emissions spectrum signature. The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. This process was repeated during final radiated emissions measurements on the open-field range, at each frequency, in order to insure that maximum emission amplitudes were attained.

Final radiated emissions measurements were made on the three-meter, open-field test site. The EUT was placed on a nonconductive turntable 0.8 meters above the ground plane. The spectrum was examined from 30 MHz to 1000 MHz.

At each frequency, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters in order to determine the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarizations. The spectrum analyzer's 6 dB bandwidth was set to 120 kHz, and the analyzer was operated in the CISPR quasi-peak detection mode. No video filter less than 10 times the resolution bandwidth was used. When any clock exceeds 108 MHz, the EUT was tested between 1 to 2 Gigahertz in peak mode with the resolution bandwidth set at 1 MHz as stated in ANSI C63.4. The highest emission amplitudes relative to the appropriate limit were measured and recorded in this report.

Note: Rhein Tech Laboratories, Inc. has implemented procedures to minimize errors that occur from test instruments, calibration, procedures, and test setups. Test instrument and calibration errors are documented from the manufacturer or calibration lab. Other errors have been defined and calculated within the Rhein Tech quality manual, section 6.1. Rhein Tech implements the following procedures to minimize errors that may occur: yearly as well as daily calibration methods, technician training, and emphasis to employees on avoiding error.