

EXHIBIT F

MEASUREMENT PROCEDURE AND RESULTS

FCC ID CNT75MEIZ

COMPAQ COMPUTER CORPORATION

07-01-97

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SR_3600

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EMISSIONS TEST REPORT

Project Number 96092a

TEST DATE: September 19, 1996

Product Series Number: 3600

FCC ID: CNT75MEIZ

NVLAP "Accredited by the National Voluntary Laboratory
Accreditation Program for the specific scope of accreditation under Lab
Code 200058-0."

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1.0 SCOPE

This document details the test results and the measurement procedures and equipment in use at the time the device described in section 2.0 was tested for radio frequency emissions.

2.0 DEVICE UNDER TEST

A COMPAQ Personal Computer Professional Workstation, Series 3600 FCC ID: CNT75MEIZ.

3.0 DEVICE UNDER TEST CONFIGURATION

The Device Under Test Contained one 3.50" 1.44 Megabyte floppy disk drive, one 1.2 Gigabyte SCSI fixed disk drive, 8 Megabytes of system memory, ELSA Video Card FCC ID: KJGGLORIAL or Matrox Video Card FCC ID: ID7057600, a Model 2011 Power Supply and alternately a PS2032 Power Supply, used a unshielded AC power cable and was tested with the following peripherals:

A COMPAQ Model 482 - Video Graphics Color Monitor, Serial Number 619FA05AB196, FCC ID: A3KM054, was connected to the system VGA connector with a shielded cable 1 meter in length. AC Power was provided by an unshielded power cord.

A HEWLETT PACKARD Model 2225C Printer, FCC ID: DSI6XU2225, Serial Number 2922S46788, was connected to the parallel output connector of the system unit by means of a shielded cable 1 meter in length.

A COMPAQ CDROM Drive Unit, Model CDU6611-31, Serial Number 8006754, FCC ID: AK8CDU761101 was connected to the system via associated cable 1 meter in length.

FCC ID : CJE-0321, was connected to the serial output connector of the system unit by means of a shielded cable 1 meter in length.

A U.S. Robotics Si Sportster Modem, Serial Number 009220012872561, FCC ID : CJE-0321, was connected to the serial output connector of the system unit by means of a shielded cable 1 meter in length.

A KOSS SPEAKER SYSTEM, was attached to the system by means of an unshielded cable 1 meter in length.

A COMPAQ Keyboard Model RT101, Serial Number 1GD39C009510, FCC ID: AQ6-MTN4x215, was attached to the keyboard interface via associated cable.

A COMPAQ Mouse Model M-CQ38, Serial Number LZA62600641, FCC ID: D2LM04, was attached to the keyboard interface via associated cable.

Unless noted, all peripheral cables mentioned above contained no Ferrite cores.

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4.0 TEST LOCATION

Tests were performed at COMPAQ COMPUTER CORPORATION Emission Control Laboratory located at 10320 Rodgers Road, Houston, Texas.

Information regarding this test site is currently on file with the FCC.
This test site meets the requirements of ANSI C63.4 and CISPR Publication 22 (EN55022; AS/NZS 3548; CNS 13438).

5.0 MEASUREMENT EQUIPMENT

The following equipment was used in the measurement of the radiated and/or conducted emissions from the device under test.

<u>TYPE</u>	<u>MODEL #</u>	<u>MANUFACTURER</u>	<u>SERIAL #</u>	<u>LAST CAL</u>
<u>Conducted</u>				
Test Receiver	ESH 3	Rohde & Schwarz	892473/009	8/28/97
LISN	LISN-2	Fischer	None	8/4/97
LISN	ESH2-Z5	Rhode & Schwarz	838641/001	9/19/97
LISN	ESH3-Z5	Rohde & Schwarz	861189/022	10/21/97
LISN	ESH3-Z5	Rohde & Schwarz	892475/016	10/13/97
LISN	NSLK8127	Schwarzbeck	8127181	10/21/97
<u>Chamber</u>				
Test Receiver	ESMI	Rohde & Schwarz	833303/004	7/18/97
Antenna	CBL6112	Chase	2020	6/28/97
<u>Above 1 Ghz</u>				
Test Receiver	ESBI	Rohde & Schwarz	836833/004	4/13/98
PreAmplifier	8449B	Hewlett Packard	3008A00239	7/8/97
Linearly Polarized Horn Antenna	3115	Electro-Mechanics	9112-3752	5/15/98

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6.0 CALIBRATION

All measurement equipment used in performing these tests have been calibrated in accordance with manufacturers recommendations. All calibrations were current when the tests were performed.

7.0 RADIATED EMISSION TEST

All radiated testing was performed on the site referenced in section 4.0 in accordance with ANSI C63.4: 1992 and CISPR 22: 1993 (EN55022; AS/NZS 3548; CNS 13438)

7.1 TEST CONFIGURATION

The device under test, installed in a representative system as described in section 3.0, was placed on a non-conductive table/rotator assembly whose total height equaled 80 CM.

The measurement antenna was mounted to a non-conductive mast capable of moving the antenna through a vertical range of 1 to 4 meters. This mast was positioned such that the distance from the antenna to the system under test was 10 meters, except required testing above 1 GHz which is performed at a distance of 3 meters.

7.2 TEST CONDITION

The system under test was programmed to output a continuous stream of the capital letter "H" to the video display device and alternately to any attached or included peripheral or any combination thereof.

7.3 FREQUENCY RANGE

Radiated emissions were investigated over the frequency range of 30 Mhz through 1000 Mhz using a receiver bandwidth of 120 KHz, unless otherwise noted. Above 1000 MHz testing used a receiver bandwidth of 1 MHz.

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7.4 TEST PROCEDURE

For each predominate emission frequency, the following were varied as noted to achieve the maximum emission amplitude.

- a) Antenna polarization was varied from horizontal to vertical.
- b) Antenna height was varied from 1 meter to 4 meters.
- c) System under test was rotated from 0 degrees through 360 degrees relative to the antenna position.
- d) Interface cable positions were varied (excluding positions which would result in cables laying over or under peripherals or the system unit).
- e) All user accessible speeds were investigated and include:
 - P6/200 MHz 66MHz x 3
- f) Video modes tested using scrolling H's:
 - 80 column
 - 1600 x 1280 non-interlaced mode.Data represented here is worst case.
- g) The computer is a "single speed" machine in that only one clock frequency is created for microprocessor. Compatibility with software designed to run on slower machines is achieved through the insertion of wait states that can be activated by a user command.
- h) The Device Under Test is shippable with more than one type of supply, each supply is listed here and the test data contained in this report is for all power supplies listed:
 - PS2011
 - PS2032

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7.5 TEST DATA 30 MHz – 1 GHz

This personal computer was tested in each of its supported configurations/processor speeds. The readings presented below are from the configuration which produced the maximum emission levels for this personal computer.

The test voltage of the DUT was set at: 110VAC

The results stated in this section are for the Device specified in Section 2.0 of this report.

All readings are CISPR quasi-peak, unless otherwise noted.

Frequency MHz	Level dBuV/m	Height cm	Azimuth deg	Polarisation
35.239000	29.96	100.0	85.00	V QP
99.074000	29.24	100.0	90.00	V QP VIDEO
119.995000	21.20	100.0	40.00	H QP
167.445000	12.00	100.0	145.00	V QP
198.159000	24.70	100.0	0.00	V QP VIDEO
211.497000	27.82	100.0	350.00	V QP
247.704000	22.5	100.0	210.00	V QP VIDEO
798.055556	34.54	350.0	15.00	V QP

Data Reflects Compliance data using the ELSA Rev. D Video Card.

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Frequency MHz	Level dBuV/m	Height cm	Azimuth deg	Polarisation
33.700000	28.00	122.0	215.00	V QP
48.000000	18.10	125.0	1.00	V QP
50.015000	21.70	100.0	1.00	V QP
50.550000	25.40	270.0	250.00	V QP
80.000000	29.69	127.0	47.00	V QP
332.400000	31.87	100.0	170.00	V QP
572.730000	35.20	350.0	337.00	V QP
606.513000	32.20	343.0	333.00	V QP
664.797000	35.17	100.0	14.00	H QP
842.000000	32.10	205.0	355.00	V QP
850.166000	31.10	222.0	2.00	V QP
862.966000	34.75	350.0	35.00	H QP
997.197000	30.10	127.0	185.00	H QP

Data Reflects compliance data using the Matrox Video Card.

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7.5.1 TEST DATA ABOVE 1 GHz

Freq. MHz	Rdg. dbuV	Corr. Factor	Corr. Rdg. dB	Corr. Rdg. dbuv/m	Limit uV/m	Delta uV/m	Azm dB	Alt 1	Pol V
1010	46.99	-1.08	45.91	197.47	500	-8.09	0	1	V
1063	47.81	-1.34	46.47	210.62	500	-7.53	188	1	V
1100	46.59	-1.34	45.25	183.02	500	-8.75	108	1	H
1163	47.74	-1.45	46.29	206.30	500	-7.71	168	1	H
1198	51.96	-1.29	50.67	341.59	500	-3.33	270	1	V
1350	49.86	-1.12	48.74	273.53	500	-5.26	0	1	V

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8.0 CONDUCTED EMISSION TEST

All conducted emissions testing was performed in accordance with ANSI C63.4 1992 and CISPR Publication 22 1993 (EN55022; AS/NZS 3548; CNS 13438) inside a shielded room.

8.1 TEST CONFIGURATION

The device under test, installed in a representative system as described in section 3.0, was placed on a non-conductive table 80 CM in height, and located 40 CM from the closest vertical grounded surface. The system under test was connected to the power supply mains through a Line Impedance Stabilization Network (LISN) constructed in accordance with ANSI C63.4 (1992) and CISPR Publication 16.

8.2 TEST CONDITION

The system under test was programmed to output a continuous stream of the capital letter "H" to the video display device and alternately to any attached or included peripheral or any combination thereof.

8.3 FREQUENCY RANGE

Conducted emissions were investigated over the frequency range of 150 Khz through 30 Mhz using a receiver bandwidth of not less than 9 Khz.

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8.4 TEST PROCEDURE

A test receiver was connected to the signal output of the LISN. The test receiver was tuned through the band 150 KHz to 30 Mhz, all predominate emissions were recorded.

For each predominate emission frequency, the following were varied as noted to achieve the maximum emission amplitude.

- a.) Interface cable positions were varied (excluding positions which would result in cables laying over or under peripherals or the system unit).
- b.) The Device Under Test was a multiple processor speed device, all user accessible speeds were investigated.

The unused output of the LISN was terminated into a 50 ohm resistance.

The input to the test receiver was switched to the other line of the LISN and the above procedure repeated.

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8.5 TEST DATA

This personal computer was tested in each of its supported configurations/processor speeds. The readings presented below are from the configuration which produced the maximum emission levels for this personal computer. Line and Neutral test data has been recorded. The highest levels from both lines have been recorded and represented here.

The results stated in this section are for the Device specified in Section 2.0 of this report.
All readings are CISPR quasi-peak, unless otherwise noted.

• **PS2011**

CISPR 22 Class B Quasi-Peak Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	53.30	64.79
0.2605	50.90	61.41
0.5434	11.10	56
7.8946	22.30	60
8.7189	19.10	60
9.1956	29.70	60

CISPR 22 Class B Average Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	45.40	54.79
0.2605	37.90	51.41

CISPR 22 Class B Quasi-Peak Detector Readings @ 220 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	57.50	64.79
0.2605	54.50	61.41
3.1782	16.60	56
4.4120	21.90	56
5.0206	26.50	60
6.5371	27.40	60

CISPR 22 Class B Average Detector Readings @ 220 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	42.10	54.79
0.2605	39.00	51.41

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• **PS2032**

CISPR 22 Class B Quasi-Peak Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1799	54.50	64.49
0.2702	47.10	61.11
0.3603	40.00	58.72
0.4506	44.30	56.86
0.5409	44.40	56
7.3013	43.00	60

CISPR 22 Class B Average Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1799	53.60	54.49

CISPR 22 Class B Quasi-Peak Detector Readings @ 220 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1807	53.70	64.45
0.2711	46.70	61.08
0.3613	39.30	58.69
0.4516	44.50	56.84
0.5421	44.60	56
7.3117	42.10	60

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9.0 DATE OF TEST

All tests detailed in this document were performed on or about 9/19/96.

10.0 COMPLIANCE STATEMENT

This product has been tested and found to comply with the applicable limits of CISPR 22; CNS13438; AS/NZS3548; EN55022.

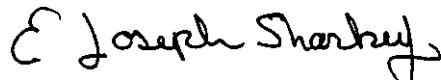
11.0 TEST PERSONNEL

The below signed personnel, having been directly involved in the collection of the test data contained in this report, do, by their signatures, declare the contents of this report to be true and correct to the best of their knowledge.

Signature(s):



Name: Joel M. Abston
Title: EMC Technician



Name: E. Joseph Sharkey
Title: Supervisor, EMC Services

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MEASUREMENT PROCEDURE AND RESULTS

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EMC

Emission Test Report

For

**Series 3600
FCC ID: CNT75MEIZ**

Date: July 1, 1997

**Compaq Computer Corporation
20555 SH 249, PO Box 692000
Houston, Texas 77269-2000**

**Lab Address:
10320 Rodgers Road
Houston, Texas 77070**

**Mailing Address:
20555 SH 249, PO Box 692000
MS 510101
Houston, Texas 77269-2000**

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EMISSIONS TEST REPORT

Project Number 96092a

TEST DATE: 09-19-96

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1.0 SCOPE

This document details the test results and the measurement procedures and equipment in use at the time the device described in section 2.0 was tested for radio frequency emissions.

2.0 DEVICE UNDER TEST

A COMPAQ Personal Computer Professional Workstation, Model Series 3600
FCC ID: N/A (Declaration of Conformity).

3.0 DEVICE UNDER TEST CONFIGURATION

The Device Under Test Contained one 3.50" 1.44 Megabyte floppy disk drive, one 1.2 Gigabyte SCSI fixed disk drive, 8 Megabytes of system memory, ELSA Video Card FCC ID: KJGGLORIAL or Matrox Video Card FCC ID: ID7057600, Model 2011 Power Supply used a unshielded AC power cable and was tested with the following peripherals:

A COMPAQ Model 482 - Video Graphics Color Monitor, Serial Number 619FA05AB196, FCC ID: A3KM054, was connected to the system VGA connector with a shielded cable 1 meter in length. AC Power was provided by an unshielded power cord.

A HEWLETT PACKARD Model 2225C Printer, FCC ID: DSI6XU2225, Serial Number 2922S46788, was connected to the parallel output connector of the system unit by means of a shielded cable 1 meter in length.

A COMPAQ CDROM Drive Unit, Model CDU6611-31, Serial Number 8006754, FCC ID: AK8CDU761101 was connected to the system via associated cable 1 meter in length.

FCC ID : CJE-0321, was connected to the serial output connector of the system unit by means of a shielded cable 1 meter in length.

A U.S. Robotics Si Sportster Modem, Serial Number 009220012872561, FCC ID : CJE-0321, was connected to the serial output connector of the system unit by means of a shielded cable 1 meter in length.

A KOSS SPEAKER SYSTEM, was attached to the system by means of an unshielded cable 1 meter in length.

A COMPAQ Keyboard Model RT101, Serial Number 1GD39C009510, FCC ID: AQ6-MTN4x215, was attached to the keyboard interface via associated cable.

A COMPAQ Mouse Model M-CQ38, Serial Number LZA62600641, FCC ID: D2LM04, was attached to the keyboard interface via associated cable.

Unless noted, all peripheral cables mentioned above contained no Ferrite cores.

4.0 TEST LOCATION

Series Number: 3600

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Tests were performed at COMPAQ COMPUTER CORPORATION Emission Control Laboratory located at 10320 Rodgers Road, Houston, Texas.

Information regarding this test site is currently on file with the FCC.
This test site meets the requirements of CISPR Publications 22 (EN55022).

5.0 MEASUREMENT EQUIPMENT

The following equipment was used in the measurement of the radiated and/or conducted emissions from the device under test.

<u>TYPE</u>	<u>MODEL #</u>	<u>MANUFACTURER</u>	<u>SERIAL #</u>
<u>Conducted</u>			
Test Receiver	ESH 3	Rohde & Schwarz	892473/009
LISN	ESH3-Z5	Rohde & Schwarz	892475/016
LISN	LISN-2	Fischer	None
LISN	LISN-2	Fischer	None
<u>Chamber</u>			
Test Receiver	ESBI	Rohde & Schwarz	836833/004
Antenna	CBL6112	Chase	2020
<u>1-2 Ghz In SAR</u>			
Spectrum Analyzer	HP8594E	Hewlett Packard	3431A01222
PreAmplifier	87405A	Hewlett Packard	3207A00380
Linearly Polarized Horn Antenna	3115	Electro-Mechanics	9112-3752

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6.0 CALIBRATION

All measurement equipment used in performing these tests have been calibrated in accordance with manufacturers recommendations. All calibrations were current when the tests were performed.

7.0 RADIATED EMISSION TEST

All radiated testing was performed on the open field site referenced in section 4.0 in accordance with ANSI C63.4 1992 and CISPR Publication 22 (EN55022).

7.1 TEST CONFIGURATION

The device under test, installed in a representative system as described in section 3.0, was placed on a non-conductive table/rotator assembly whose total height equaled 80 CM.

The measurement antenna was mounted to a non-conductive mast capable of moving the antenna through a vertical range of 1 to 4 meters. This mast was positioned such that the distance from the antenna to the system under test was 10 meters.

7.2 TEST CONDITION

The system under test was programmed to output a continuous stream of the capital letter "H" to the video display device and alternately to any attached or included peripheral or any combination thereof.

7.3 FREQUENCY RANGE

Radiated emissions were investigated over the frequency range of 30 Mhz through 1000 Mhz using a receiver bandwidth of 120 Khz, unless otherwise noted.

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7.4 TEST PROCEDURE

For each predominate emission frequency, the following were varied as noted to achieve the maximum emission amplitude.

- a.) Antenna polarization was varied from horizontal to vertical.
- b.) Antenna height was varied from 1 meter to 4 meters.
- c.) System under test was rotated from 0 degrees through 360 degrees relative to the antenna position.
- d.) Interface cable positions were varied (excluding positions which would result in cables laying over or under peripherals or the system unit).
- e.) If the Device Under Test was a multiple processor speed device, all user accessible speeds were investigated and included
P6 - 200 Mhz - 66 Mhz x 3
- f.) Video modes tested were scrolling H's in 80 column and 1600 x 1280 non-interlaced mode, 85 Hz. Data represented here is worst case.
- g.) The computer is a "single speed" machine in that only one clock frequency is created for microprocessor. Compatibility with software designed to run on slower machines is achieved through the insertion of wait states that can be activated by a user command.
- h.) If the Device Under Test contained a network interface controller, the controller was active during the test.

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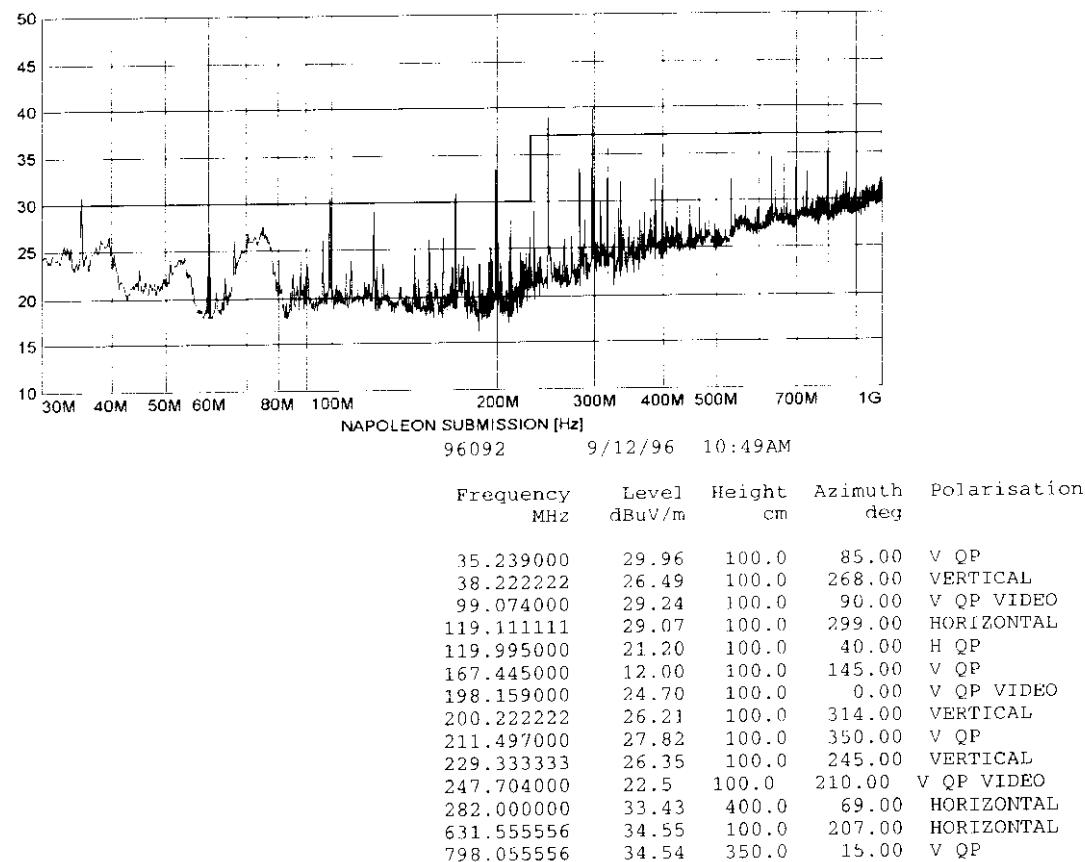
7.5 TEST DATA

This personal computer was tested in each of its supported configurations/processor speeds. The readings presented below are from the configuration which produced the maximum emission levels for this personal computer.

The results stated in this section are for the Device specified in Section 2.0 of this report.

All readings are CISPR quasi-peak, unless otherwise noted.

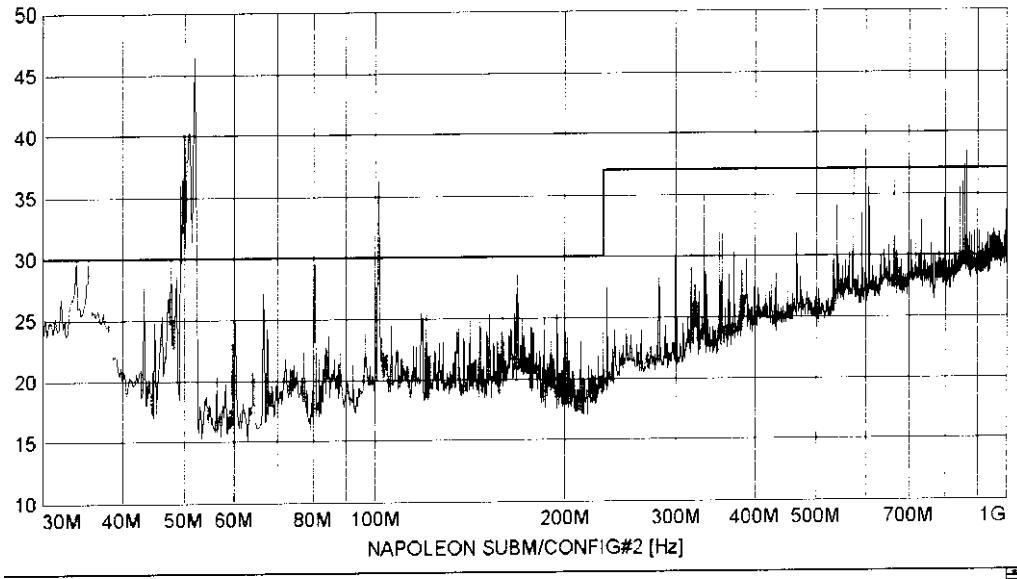
16X3 H&V [dB μ V/m]



Data Reflects Compliance data using the ELSA Rev. D Video Card.

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16X3 QV172/MATROX 1280X10 [dB μ V/m]



1 MES 00001 test PK
9/16/96 4:12PM

Frequency MHz	Level dB μ V/m	Height cm	Azimuth deg	Polarisation
33.111111	26.39	250.0	314.00	VERTICAL
33.700000	28.00	122.0	215.00	V QP
48.000000	18.10	125.0	1.00	V QP
50.015000	21.70	100.0	1.00	V QP
50.550000	25.40	270.0	250.00	V QP
52.000000	27.10	240.0	245.00	V QP POP 32
66.666667	27.14	250.0	84.00	VERTICAL
80.000000	29.69	127.0	47.00	V QP
101.097000	23.87	100.0	320.20	V QP MON OFF
120.444444	26.73	400.0	115.00	HORIZONTAL
332.400000	31.87	100.0	170.00	V QP
572.730000	35.20	350.0	337.00	V QP
606.513000	32.20	343.0	333.00	V QP
664.797000	35.17	100.0	14.00	H QP
842.000000	32.10	205.0	355.00	V QP
850.166000	31.10	222.0	2.00	V QP
862.966000	34.75	350.0	35.00	H QP
997.197000	30.10	127.0	185.00	H QP

Data Reflects compliance data using the Matrox Video Card.

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FCC Class B at 3 meters 1 Ghz to 2 Ghz Radiated Test Results.

Readings are Peak with spectrum analyzer bandwidth at 1 Mhz.

Readings were collected within a semi-anechoic chamber.

Freq. MHz	Rdg. dbuV dB	Corr. Factor	Corr. Rdg. dbuv/m	Corr. Rdg. uV/m	Limit 500	Delta dB	Azm 0	Alt 1	Pol V
1010	46.99	-1.08	45.91	197.47	500	-8.09	0	1	V
1063	47.81	-1.34	46.47	210.62	500	-7.53	188	1	V
1100	46.59	-1.34	45.25	183.02	500	-8.75	108	1	H
1163	47.74	-1.45	46.29	206.30	500	-7.71	168	1	H
1198	51.96	-1.29	50.67	341.59	500	-3.33	270	1	V
1350	49.86	-1.12	48.74	273.53	500	-5.26	0	1	V

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8.0 CONDUCTED EMISSION TEST

All conducted emissions testing was performed in accordance with ANSI C63.4 1992 and was tested inside a shielded room.

8.1 TEST CONFIGURATION

The device under test, installed in a representative system as described in section 3.0, was placed on a non-conductive table 80 CM. in height, and located 40 CM. from the closest vertical grounded surface. The system under test was connected to the power supply mains through a Line Impedance Stabilization Network (LISN) constructed in accordance with ANSI C63.4 (1992) and CISPR Publication 16.

8.2 TEST CONDITION

The system under test was programmed to output a continuous stream of the capital letter "H" to the video display device and alternately to any attached or included peripheral or any combination thereof.

8.3 FREQUENCY RANGE

Conducted emissions were investigated over the frequency range of 150 KHz through 30 Mhz using a receiver bandwidth of 9 KHz.

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8.4 TEST PROCEDURE

A test receiver was connected to the signal output of the LISN. The test receiver was tuned through the band 150 KHz to 30 Mhz, all predominate emissions were recorded.

For each predominate emission frequency, the following were varied as noted to achieve the maximum emission amplitude.

- a.) Interface cable positions were varied (excluding positions which would result in cables laying over or under peripherals or the system unit).
- b.) If the Device Under Test was a multiple processor speed device, all user accessible speeds were investigated.

The unused output of the LISN was terminated into a 50 ohm resistance.

The input to the test receiver was switched to the other line of the LISN and the above procedure repeated.

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8.5 TEST DATA

This personal computer was tested in each of its supported configurations/processor speeds. The readings presented below are from the configuration which produced the maximum emission levels for this personal computer. Line and Neutral test data has been recorded. The highest levels from both lines have been recorded and represented here.

The results stated in this section are for the Device specified in Section 2.0 of this report.

All readings are CISPR quasi-peak, unless otherwise noted.

CISPR 22 Class B Quasi-Peak Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	53.30	64.79
0.2605	50.90	61.41
0.5434	11.10	56
7.8946	22.30	60
8.7189	19.10	60
9.1956	29.70	60

CISPR 22 Class B Average Detector Readings @ 110 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	45.40	54.79
0.2605	37.90	51.41

CISPR 22 Class B Quasi-Peak Detector Readings @ 220 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	57.50	64.79
0.2605	54.50	61.41
3.1782	16.60	56
4.4120	21.90	56
5.0206	26.50	60
6.5371	27.40	60

CISPR 22 Class B Average Detector Readings @ 220 Volt

Frequency	Reading	Limit
Mhz	dBuv	dBuv
0.1735	42.10	54.79
0.2605	39.00	51.41

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9.0 DATE OF TEST

All tests detailed in this document were performed on or about 09-19-96

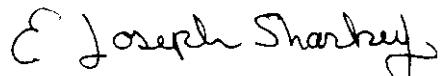
10.0 TEST PERSONNEL

The below signed personnel, having been directly involved in the collection of the test data contained in this report, do, by their signatures, declare the contents of this report to be true and correct to the best of their knowledge.

Signature(s):



Name: Joel M. Abston
Title: EMC Tech.



Name: E. Joseph Sharkey
Title: Supervisor, EMC Services