

APPENDIX A – Test Data

Summary of Test Results



Test Date(s): March 14-15, 2005

Test Engineer:

Matt Smith

Table A-1. Summary of Test Results

FCC Part 15 Section	Description	Result
15.107	Conducted Emissions	PASS
15.109	Radiated Spurious Emissions	PASS

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APPENDIX A – Test Data (Cont.)

Radiated Test Data/Plots

FREQ (MHz)	Level (dBm)	AFCL (dB/m)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S (uV/M)	Margin (dB)
58.82	-79.98	4.69	V	2.4	180	38.51	-8.3
124.73	-85.03	11.83	V	2.2	90	49.03	-9.7
173.42	-87.17	13.37	V	2.5	45	45.76	-10.3
258.74	-90.51	19.11	H	1.3	180	60.31	-10.4
367.41	-94.88	22.79	H	1.5	300	55.64	-11.1
407.01	-93.76	23.87	H	1.3	90	71.66	-8.9



Table A-2. Radiated Measurements at 3-meters

Sample #1 S/N: 52F1018SSSS

NOTES:

1. All modes of operation were investigated and the worst-case emissions are reported.
2. The radiated limits are shown on Figure A-1. Above 1 GHz the limit is 500µV/m.

-
- 1 All readings are calibrated by HP8640B signal generator with accuracy traceable to the National Institute of Standards and Technology (NIST).
 - 2 AFCL = Antenna Factor (Roberts dipole) and Cable Loss (30 ft. RG58C/U).
 - 3 Measurements using CISPR quasi-peak mode. Above 1GHz, peak detector function mode is used with a resolution bandwidth of 1MHz and a video bandwidth of 1MHz. The peak level complies with the average limit. Peak mode is used with linearly polarized horn antenna and low-loss microwave cable.

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APPENDIX A – Test Data (Cont.)

Radiated Test Data/Plots

FREQ (MHz)	Level (dBm)	AFCL (dB/m)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S (uV/M)	Margin (dB)
58.86	-79.89	4.69	V	2.3	180	38.95	-8.2
124.63	-85.12	11.82	V	2.1	90	48.47	-9.8
147.06	-87.22	13.42	V	2.3	270	45.76	-10.3
173.48	-87.27	13.37	V	2.5	45	45.24	-10.4
277.31	-89.38	19.78	H	1.4	330	74.18	-8.6
406.50	-91.95	23.86	H	1.3	90	88.15	-7.1



Table A-2. Radiated Measurements at 3-meters

Sample #2 S/N: 52F1019SSSS

NOTES:

1. All modes of operation were investigated and the worst-case emissions are reported.
2. The radiated limits are shown on Figure A-1. Above 1 GHz the limit is 500µV/m.

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- 1 All readings are calibrated by HP8640B signal generator with accuracy traceable to the National Institute of Standards and Technology (NIST).
 - 2 AFCL = Antenna Factor (Roberts dipole) and Cable Loss (30 ft. RG58C/U).
 - 3 Measurements using CISPR quasi-peak mode. Above 1GHz, peak detector function mode is used with a resolution bandwidth of 1MHz and a video bandwidth of 1MHz. The peak level complies with the average limit. Peak mode is used with linearly polarized horn antenna and low-loss microwave cable.

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APPENDIX A – Test Data (Cont.)

Radiated Test Data/Plots

FREQ (MHz)	Level (dBm)	AFCL (dB/m)	POL (H/V)	Height (m)	Azimuth (° angle)	F/S (uV/M)	Margin (dB)
72.04	-81.84	6.55	V	2.1	270	38.51	-8.3
129.98	-83.59	12.20	V	2.4	225	60.31	-7.9
173.46	-86.97	13.37	V	2.4	45	46.82	-10.1
258.23	-89.19	19.10	H	1.3	180	70.03	-9.1
367.32	-90.68	22.78	H	1.5	300	90.21	-6.9
437.63	-92.80	24.60	H	1.1	90	87.15	-7.2



Table A-2. Radiated Measurements at 3-meters

Sample #3 S/N: 52F1020SSS

NOTES:

1. All modes of operation were investigated and the worst-case emissions are reported.
2. The radiated limits are shown on Figure A-1. Above 1 GHz the limit is 500µV/m.

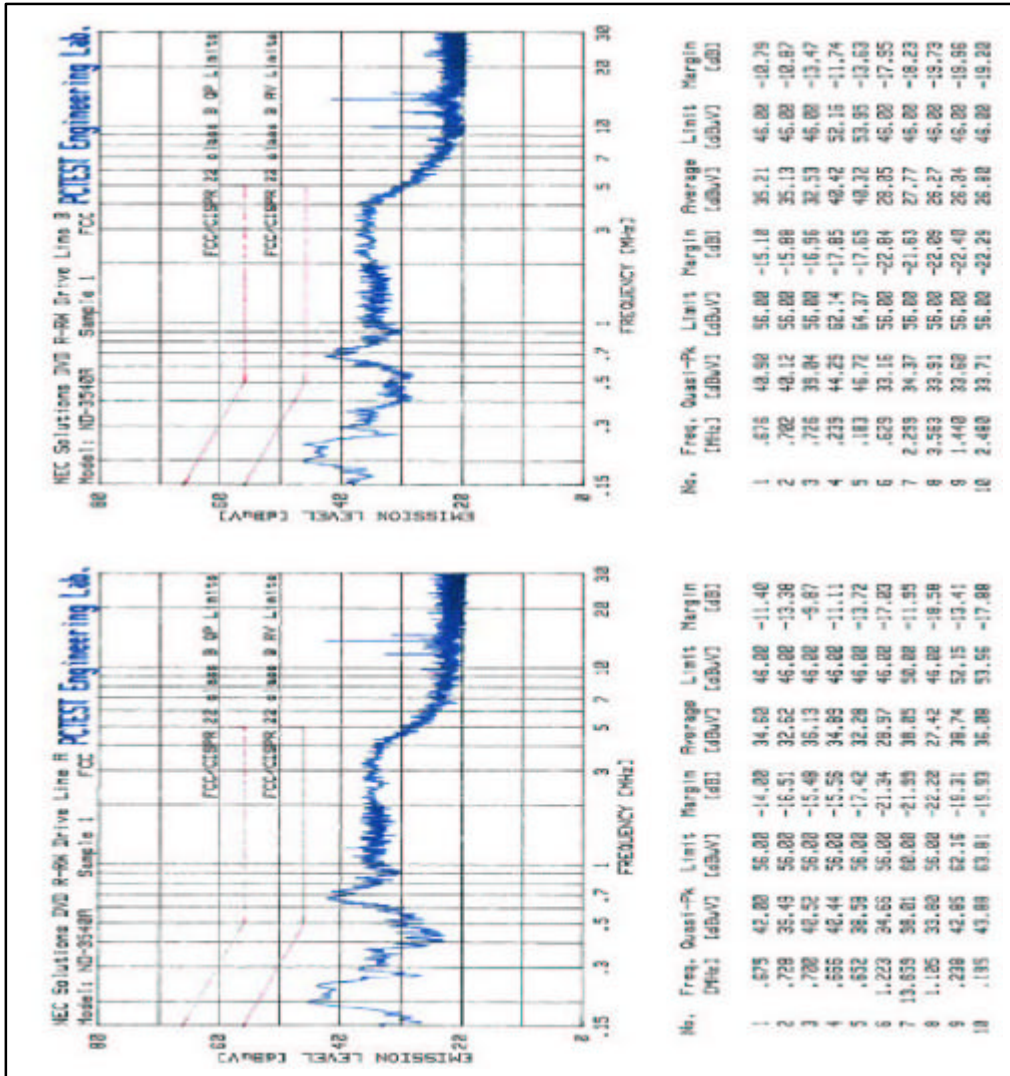
-
- 1 All readings are calibrated by HP8640B signal generator with accuracy traceable to the National Institute of Standards and Technology (NIST).
 - 2 AFCL = Antenna Factor (Roberts dipole) and Cable Loss (30 ft. RG58C/U).
 - 3 Measurements using CISPR quasi-peak mode. Above 1GHz, peak detector function mode is used with a resolution bandwidth of 1MHz and a video bandwidth of 1MHz. The peak level complies with the average limit. Peak mode is used with linearly polarized horn antenna and low-loss microwave cable.

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APPENDIX A – Test Data (Cont.)

Line-Conducted Test Data

Plot A-1. Line-Conducted Test Plot



Sample #1 S/N: 52F1018SSSS

Notes:

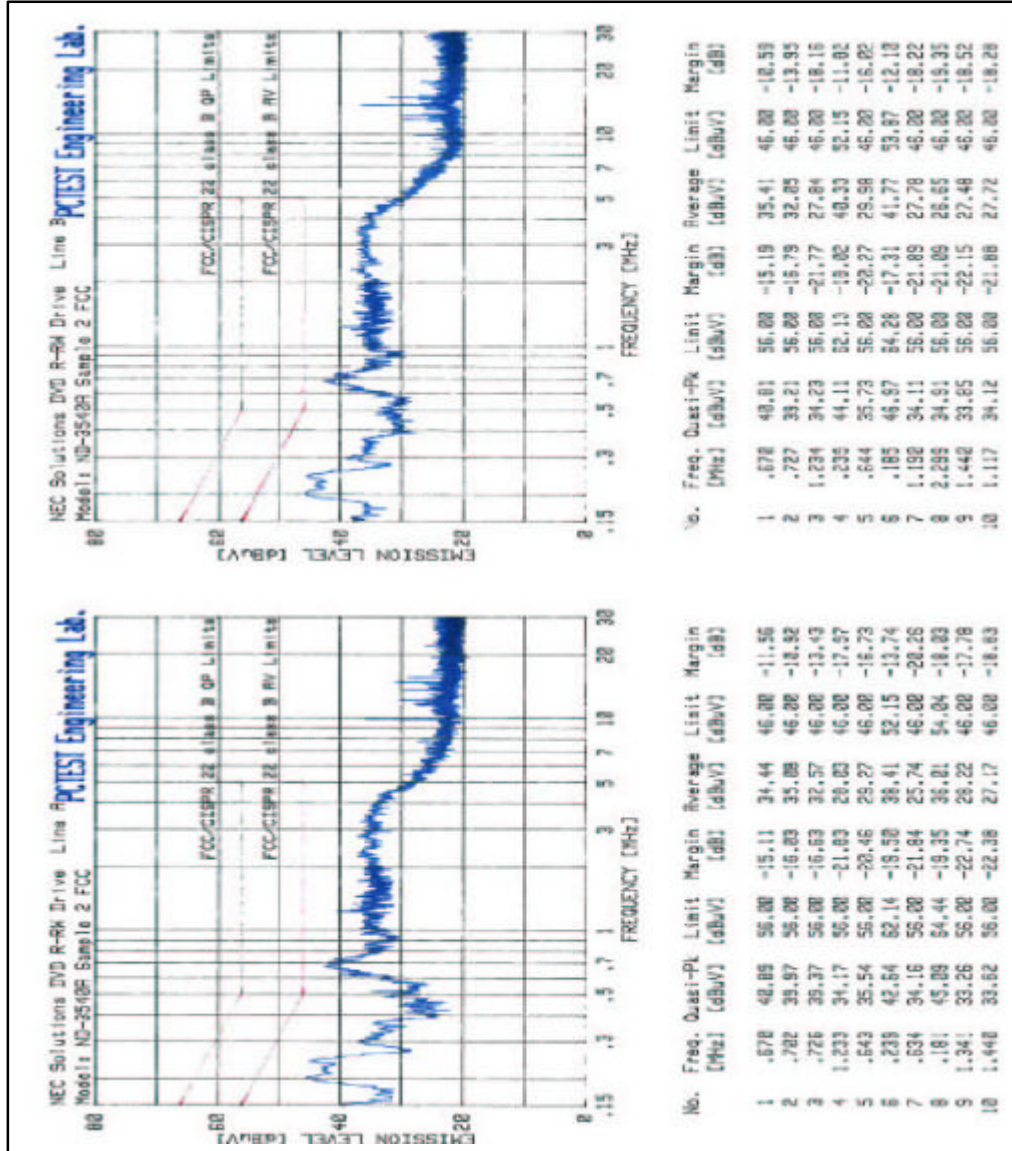
1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: *None.*

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APPENDIX A – Test Data (Cont.)

Line-Conducted Test Data

Plot A-2. Line-Conducted Test Plot



Sample #2 S/N: 52F1019SSSS

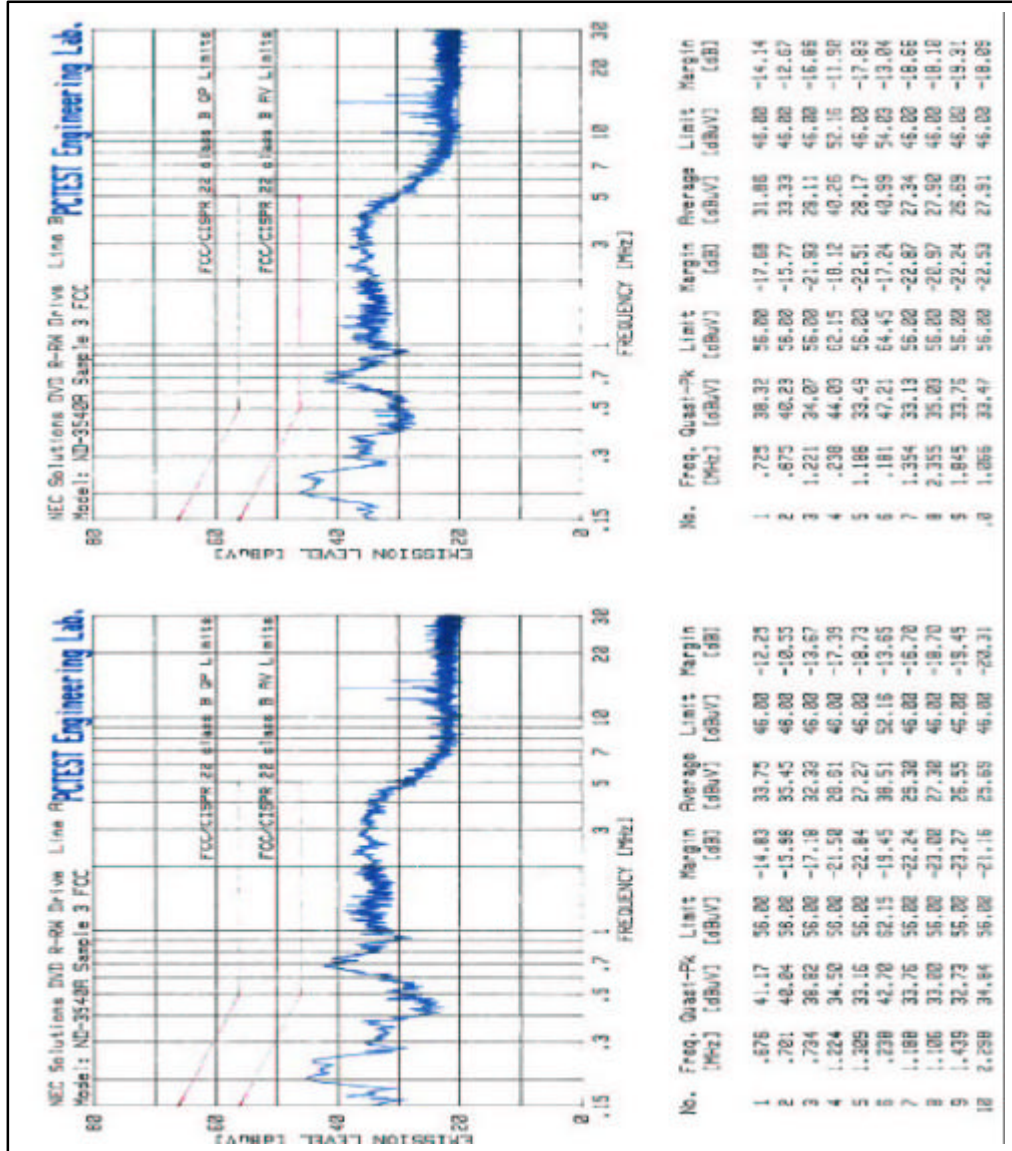
Notes:

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: *None.*

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APPENDIX A – Test Data (Cont.)
Line-Conducted Test Data

Plot A-3. Line-Conducted Test Plot



Sample #3 S/N: 52F1020SSSS

Notes:

1. All Modes of operation were investigated and the worst-case emissions are reported.
2. The limit for Class B device(s) from 150kHz to 30MHz are specified in EN55022.
3. Line A = Phase; Line B = Neutral
4. Deviations to the Specifications: *None.*



PCTEST PT. 15. REPORT		MEASUREMENT REPORT FCC Part 15B		Reviewed by: Quality Manager
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APPENDIX A – Test Data (Cont.)

Test Support Equipment Used

- | | | |
|--------------------------------|---|--|
| 1. NEC Internal DVD R/RW Drive | FCC ID: A3DND-3540A (EUT) | S/N: 52F1018SSSS
S/N: 52F1019SSSS
S/N: 52F1020SSSS |
| | 0.6 m. unshielded analog audio cable
0.6 m. unshielded digital audio cable | |
| 2. GATEWAY Mid Tower PC | Model: MFATXPNT-MDSB-4100-ACP04
1.8 m. unshielded AC power cord | S/N: 0031627700 |
| 3. H/P THINKJET Printer | FCC ID: DS16XU2225C
1.8m Unshielded AC power cord
1.5 m. shielded parallel cable | S/N: 2604S10169 |
| 4. LOGITECH Mouse | Model: JNZ211443
1.8m shielded data cable | S/N: HCA31609334 |
| 5. GATEWAY Keyboard | Model: SK1510
1.8m shielded data cable | S/N: C924775 |
| 6. ZOOM Modem | FCC ID: BDNV34MINI-EXT
1.8 m. unshielded DC power cord
1.2 m. shielded serial cable | S/N: 3117M4X40211 |
| 7. SONY Monitor | Model: SDM-X53
1.8 m. unshielded AC power cord
1.8 m. shielded D-SUB cable | S/N: N/A |

Note: See Attachment G – Test Setup Photographs, for actual system test setup.

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