



UL Korea Ltd.

FCC EVALUATION REPORT FOR CERTIFICATION

Test Report No.: 10CA46400-FCC

Applicant: EIZO NANA O CORPORATION
153 Shimokashiwano, Hakusan, Ishikawa 924-8566 Japan

Manufacturer: EIZO NANA O CORPORATION
153 Shimokashiwano, Hakusan, Ishikawa 924-8566 Japan

Product Type: Color LCD Monitor

Model Name: ES150

Multi-listing Model Name: RadiForce ES150

The manufacturer has declared to all the multiple model names into the basic model without any further evaluation by UL.

FCC ID: GCJES150

Trademark:



Rule Part(s): FCC Part 15 Subpart B Class B

FCC Classification: Class B Digital Device

FCC Procedure: Certification

Date of Receipt: 2007-02-12

Date of Test: 2007-03-09 ~ 2007-03-15

This equipment has been shown to be in compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Test Engineer:

Jea Woon, Choi 
Senior Project Engineer
Conformity Assessment Services - 3014ASEO
UL Korea Ltd.
October 22, 2010

Reviewed by

Sung Hoon, Baek 
Project Engineer
Conformity Assessment Services - 3014ASEO
UL Korea Ltd.
October 22, 2010

UL Korea Ltd. 33rd Fl. Star Tower, 737 Yeoksam-Dong, Kangnam-Gu, Seoul, 135-984, Korea

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Project Number: 10CA46400
Model Number: ES150

File Number MC15562

Date of Issue :
October 22, 2010

Test Report Details

Tests Performed By: UL Korea Ltd.
33rd FL. Gangnam Finance Center 737 Yeoksam-dong,
Kangnam-ku, Seoul, 135-984, Korea

Test Site: ESTECH CO., LTD. (FCC Registration Number : 94696)
97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

Tests Performed For: EIZO NANA CORPORATION
153 Shimokashiwano, Hakusan, Ishikawa 924-8566 Japan

Applicant Contact: Wataru Takashima

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E-mail: takasima@eizo.co.jp

Test Report Date: October 22, 2010

Product Type: Color LCD Monitor

FCC Rule Part(s): Part 15 Subpart B Class B

Model Name: ES150

Multi-listing Model name: RadiForce ES150
The manufacturer has declared to all the multiple model names into the basic model
without any further evaluation by UL.

Sample Serial Number: N/A

Sample Tag Number: N/A

Sample Receive Date: March 9, 2007

Testing Start Date: March 9, 2007

Date Testing Complete: March 15, 2007

Overall Results: PASS

UL Korea Ltd. reports apply only to the specific samples tested under stated test conditions. All samples tested were in good operating condition throughout the entire test program. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. UL Korea Ltd. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from UL Korea Ltd. issued reports. This report shall not be used to claim, constitute or imply product certification, approval, or any agency of the US government.

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1 Description of Test Facility

The measurement procedure described in American National Standard for Methods of Measurement of Radio-Nose Emissions From Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40GHz (ASNI C63.4-2003) was used in determining radiated and conducted emissions emanating from EIZO NANA O CORPORATION. Color LCD Monitor (Model No.: ES150)

- Icheon EMC Laboratory-
- 97-1 Hoiuk-Ri Majang-Myon, Icheon-city, KyungKi-Do, Korea

1.1 Official Qualification(s)

MIC : Granted Accreditation from Ministry of Information & Communication for EMC, Safety and Telecommunication
(reference no : KR0019)

KOLAS : Accredited Lab By Korea Laboratory Accreditation Schema base on CENELEC requirements
(reference no : 141)

FCC : Filed Laboratory at Federal Communications Commission (reference no : 94696)

VCCI : Granted Accreditation from Voluntary Control Council for Interference from ITE
(reference no : C-2331, R-2159)

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2 Equipment Description

The Equipment Under Test (EUT) is the EIZO NANA CORPORATION. Color LCD Monitor (Model No.: ES150)

MODEL	ES150
LCD Panel	15 inch Color TFT Panel - NEC : NL10276BC30-17 - SHARP : LQ150X1LW72
Type	Active Matrix
Max Resolution	1024 * 768 / 75Hz (Recommended)
Pixel Pitch	0.297mm
Display Color	16 million colors
Response Time	25ms
Video	0.7Vp-p analog RGB&TMDS Digital 165MHz
Input Impedance(Analog)	Video-75 Ohm Sync-1k Ohm
Digital	3 channel TMDS receiver
Horizontal	31.47~79.8kHz
Vertical	50~85Hz
Signal Input Connector	DVI-I,C-Video,S-Video,Component,RGB
Power Source(Monitor input)	DC 12V, 28W
AC/DC Adapter	Ault Inc. Model No. : MW160KA1203F54 AC100~240V, 50/60Hz, 37W
X-tal lists	28.322MHz, 27MHz

2.1 Equipment Used During Test

Use*	Product Type	Manufacturer	Model	Comments
EUT	Color LCD Monitor	EIZO NANA CORPORATION	ES150	N/A
AE	Personal Computer	Dell Asia Pacific Sdn.	DCSM	N/A
AE	Printer	Hewlett Packad	C6414J	N/A
AE	Keyboard	Dongguan Lite Power2nd Plant	SEM-DT35US	N/A
AE	Mouse	Microsoft	Wheel Mouse Optical	N/A
AE	Camcoder	SONY	DCR-TRV18	N/A
AE	Adapter	SONY	AC-L10A	N/A
AE	Adapter	YOKOGAWA	C6409-60152	N/A
Note:*Use = EUT - Equipment Under Test, AE - Auxiliary/Associated Equipment, or SIM - Simulator (Not Subjected to Test)				

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2.2 Input/Output Ports

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
1	15"LCD Monitor	DC	2.0	Yes	N/A
2	15"LCD Monitor(RGB)	I/O	2.0	Yes	N/A
3	15"LCD Monitor(DVI)	I/O	2.0	Yes	N/A
4	15"LCD Monitor(S-Video)	I/O	2.0	No	N/A
5	15"LCD Monitor(C-Video)	I/O	2.0	No	N/A
6	PC(Pranter)	I/O	2.0	Yes	N/A
7	PC(Mouse)	I/O	2.0	Yes	N/A
8	PC(Keyboard)	I/O	2.0	Yes	N/A
9	PC	AC	2.0	No	N/A
10	Camcoder	DC	2.0	Yes	N/A
11	Camcoder(C-Video)	I/O	2.0	Yes	N/A
Note:*AC= AC Power Port, DC = DC Power Port, N/E = Non-Electrical, TP= Telecommunication Ports I/O = Signal Input or Output Port (Not Involved in Process Control)					

2.3 Power Interface

Mode #	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Phases (#)	Comments
Rated	AC 100~240 V	1.2	37	50/60 Hz	Single	External AC Adapter
Rated	DC 12V	3.5	28	-	-	Monitor

2.4 EUT Operation Modes & Configurations

Emission on the EUT have been performed under continuous displaying "H" character.

Mode	Description
1024*768(75Hz)	Displaying "H" character at 1024*768(75Hz)

Note : The worst operating condition of the test sample was found out by preliminary investigation in varying resolution mode which recommended manufacturer . And, the final measurement was performed at the resolution above listed.

2.5 Result Summary

Clause	Requirement – Test	Result	Verdict
15.107	Conducted emission	Met relevant limit	Complied
15.109	Radiated emission	Met relevant limit	Complied

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3 Test Conditions and Results – Conducted Emission

1.5	TEST: Limits of conducted emission				
Method	Measurements were made on a ground plane that extends 1-meter minimum beyond all sides of the system under test. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN.				—
Parameters required prior to the test	Laboratory Ambient Temperature			10 to 40 °C	
	Relative Humidity			10 to 90 %	
Parameters recorded during the test	Laboratory Ambient Temperature			22°C	
	Relative Humidity			39%	
	Frequency range on each side of line			Measurement Point	
Fully configured sample scanned over the following frequency range	150kHz to 30MHz			Mains	
Limits - Class A					
Frequency (MHz)	Limit (dBµV)				
	Quasi-Peak	Result	Average	Result	
0.15 to 0.50	79	-	66	-	
0.50 to 30	73	-	60	-	
Limits - Class B					
Frequency (MHz)	Limit (dBµV)				
	Quasi-Peak	Result	Average	Result	
0.15 to 0.50	66 to 56	Pass	56 to 46	Pass	
0.50 to 5	56	Pass	46	Pass	
5 to 30	60	Pass	50	Pass	
Supplementary information: N/A					

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	Rohde&Schwarz	ESP17	100185	2006.08.24	2007.08.24
Pulse Limiter	Rohde&Schwarz	ESH2Z2	NONE	2006.06.15	2007.06.15
LISN	Schwarzbeck	NNLA8120A	8120161	2007.02.27	2008.02.28
LISN	Schwarzbeck	ESH3-Z5	838979/010	2007.02.27	2008.02.28

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Figure 1 : Front for NEC Panel



Figure 2 : Rear for NEC Panel



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Table 1 :Test mode – DVI(NEC Panel)

Test Frequency (MHz)	Line	Cable loss (dB)	Transducer Factor(dB)	Level (dBuV)		Limit (dBuV)		Margin (dB)	
				Q.P	AV	Q.P	AV	Q.P	AV
0.15	N	0.0	0.17	41.76	31.31	66.00	56.00	24.07	24.52
0.18	H	0.1	0.14	42.75	-	64.35	54.35	21.36	-
0.20	N	0.1	0.12	35.86	27.26	63.45	53.45	27.37	25.97
0.25	H	0.1	0.12	38.94	-	61.92	51.92	22.76	-
0.31	N	0.1	0.13	32.32	-	59.89	49.89	27.34	-
0.43	H	0.2	0.14	34.53	-	57.23	47.23	22.36	-
0.68	N	0.2	0.16	34.77	-	56.00	46.00	20.87	-
1.36	N	0.2	0.26	34.06	-	56.00	46.00	21.48	-
1.60	H	0.3	0.27	34.10	31.68	56.00	46.00	21.33	13.75
2.16	H	0.3	0.29	35.62	33.69	56.00	46.00	19.79	11.72
4.69	N	0.3	0.37	39.94	-	56.00	46.00	15.39	-
4.93	H	0.3	0.38	41.56	39.94	56.00	46.00	13.76	5.38
5.36	H	0.3	0.39	38.98	35.22	60.00	46.00	20.33	10.09
6.91	N	0.4	0.46	36.79	-	60.00	50.00	22.35	-
7.15	N	0.4	0.47	35.07	-	60.00	50.00	24.06	-
8.02	H	0.5	0.52	31.77	-	60.00	50.00	27.21	-
19.80	H	0.8	0.93	31.60	-	60.00	50.00	26.67	-
23.85	H	0.9	0.93	32.57	30.50	60.00	50.00	25.6	17.67
Supplementary information : N/A									

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Table 2 : Test mode- RGB(NEC Panel)

Test Frequency (MHz)	Line	Cable loss (dB)	Transducer Factor(dB)	Level (dBuV)		Limit (dBuV)		Margin (dB)	
				Q.P	AV	Q.P	AV	Q.P	AV
0.15	N	0.0	0.17	41.75	31.20	66.00	56.00	24.08	24.63
0.18	H	0.1	0.14	43.02	-	64.30	54.30	21.04	-
0.20	N	0.1	0.12	35.79	-	63.57	53.57	27.56	-
0.25	H	0.1	0.12	37.96	-	61.82	51.82	23.64	-
0.31	H	0.1	0.13	34.75	30.19	60.05	50.05	25.07	19.63
0.43	N	0.2	0.14	30.89	-	57.31	47.31	26.08	-
0.55	N	0.2	0.15	31.70	27.23	56.00	46.00	23.95	18.42
0.74	N	0.2	0.17	33.46	-	56.00	46.00	22.17	-
1.04	N	0.2	0.25	31.27	-	56.00	46.00	24.28	-
1.11	H	0.2	0.25	32.68	-	56.00	46.00	22.87	-
2.64	H	0.3	0.31	35.72	33.84	56.00	46.00	19.67	11.55
4.91	H	0.3	0.38	39.34	36.77	56.00	46.00	15.98	8.55
5.46	N	0.3	0.40	33.24	-	60.00	50.00	26.06	-
6.81	H	0.4	0.45	31.04	-	60.00	50.00	28.11	-
7.43	N	0.4	0.49	29.21	-	60.00	50.00	29.90	-
7.77	H	0.5	0.51	32.12	-	60.00	50.00	26.87	-
8.04	H	0.5	0.53	32.76	-	60.00	50.00	26.21	-
22.04	H	0.8	0.93	30.89	-	60.00	50.00	27.38	-
Supplementary information : N/A									

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Figure 3 : Test mode DVI-HOT Line(NEC Panel)

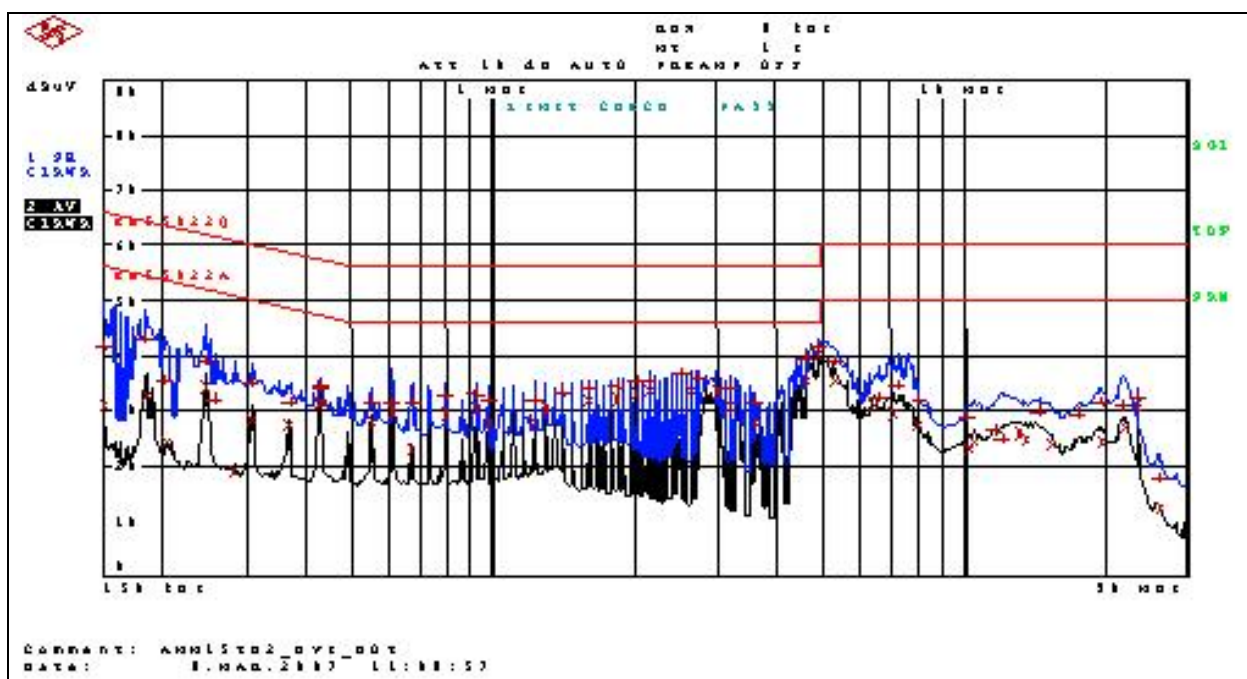
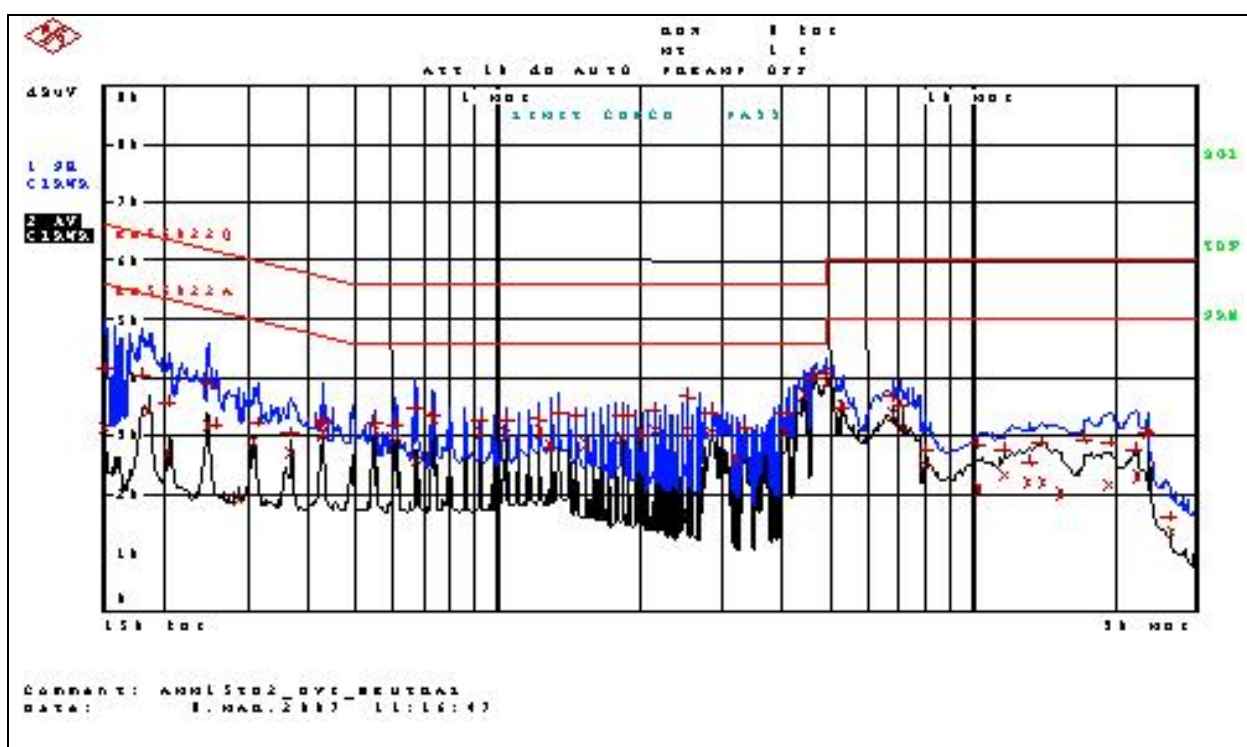


Figure 4: Test mode DVI-NEUTRAL Line(NEC Panel)



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Figure 5 : Test mode RGB-HOT Line(NEC Panel)

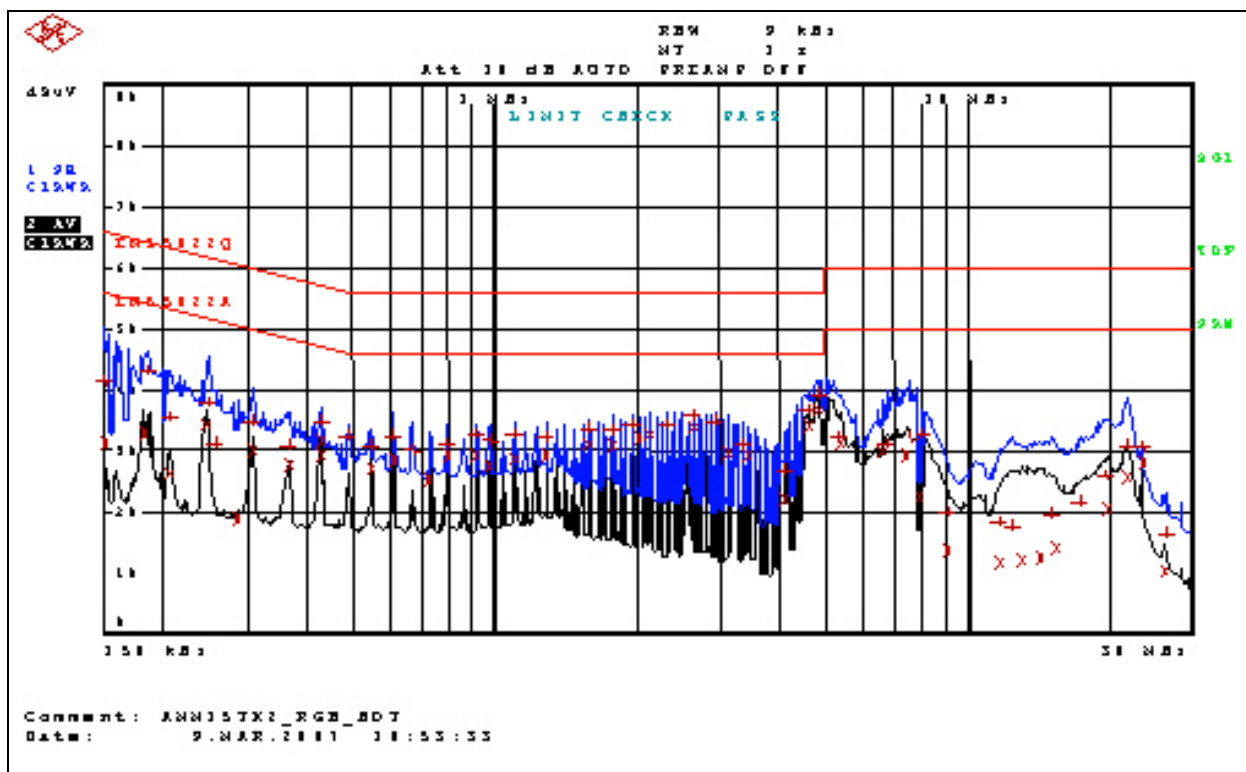
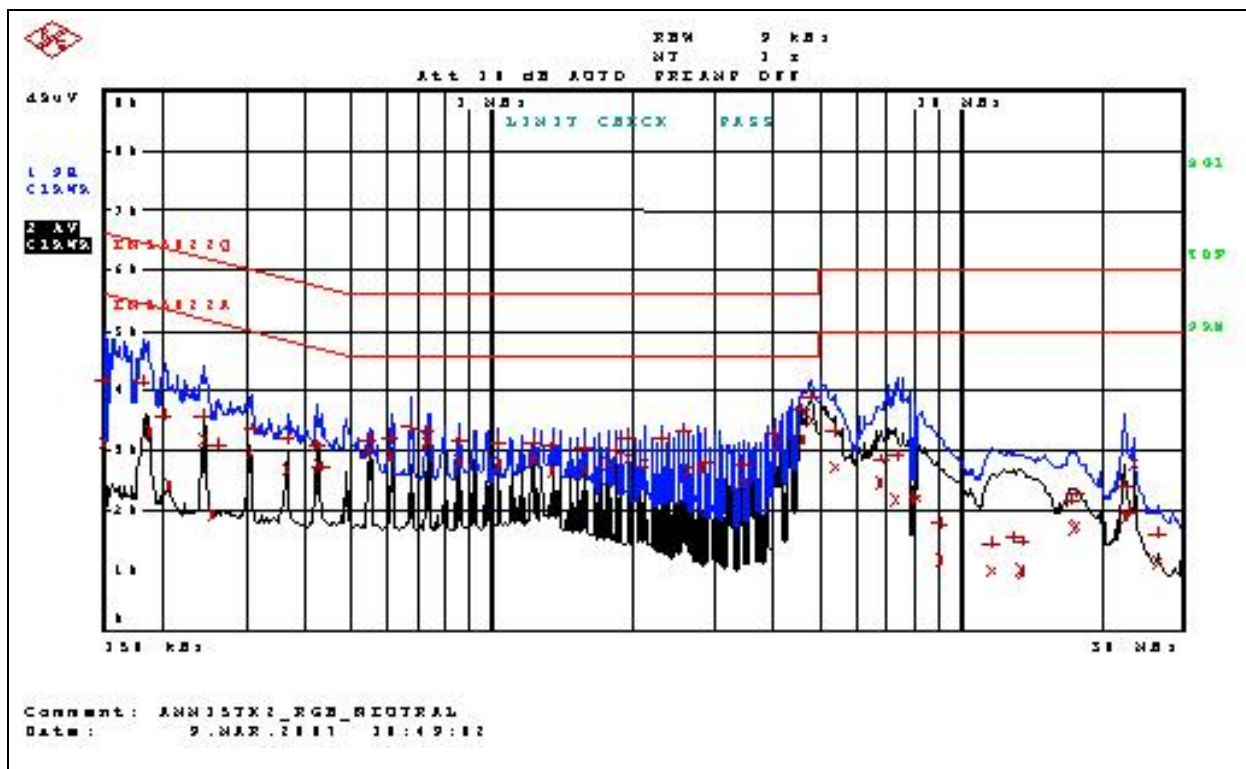


Figure 6: Test mode RGB-NEUTRAL Line(NEC Panel)



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Figure 7 : Front for Sharp Panel

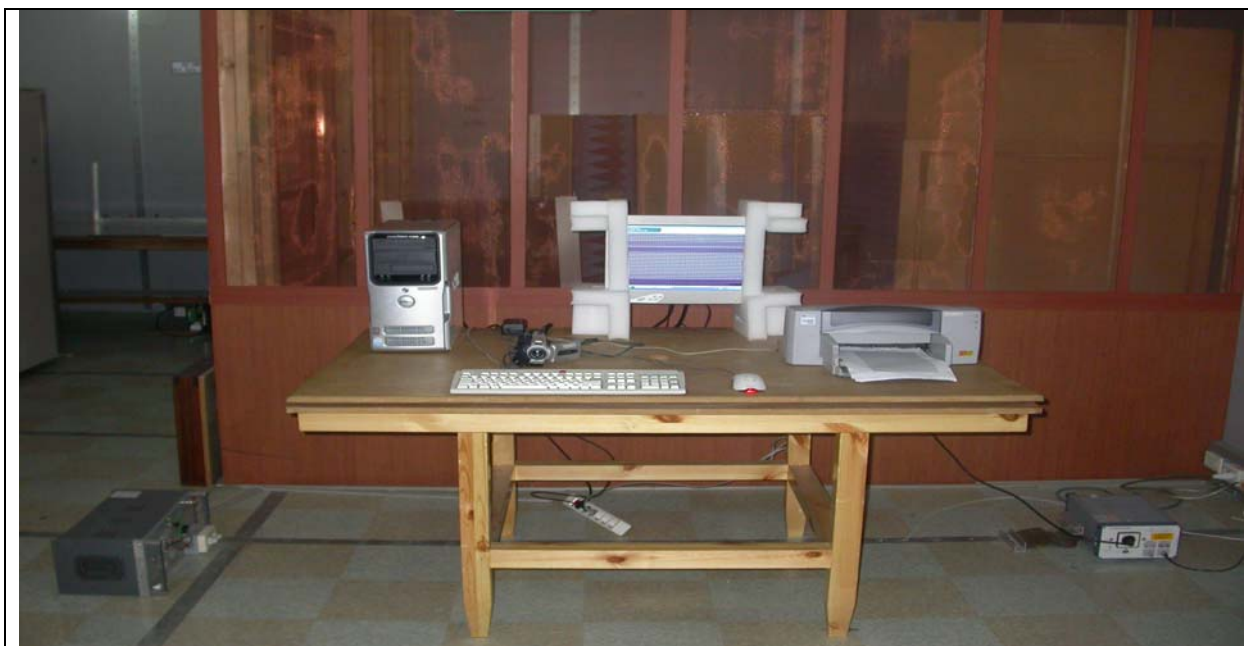


Figure 8 : Rear for Sharp Panel



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Table 3 :Test mode – DVI(Sharp Panel)

Test Frequency (MHz)	Line	Cable loss (dB)	Transducer Factor(dB)	Level (dBuV)		Limit (dBuV)		Margin (dB)	
				Q.P	AV	Q.P	AV	Q.P	AV
0.15	N	0.0	0.17	41.71	-	66.00	56.00	24.12	-
0.18	N	0.1	0.14	43.17	-	64.53	54.53	21.16	-
0.20	H	0.1	0.12	35.55	-	63.53	53.53	27.76	-
0.21	N	0.1	0.12	34.94	-	63.24	53.24	28.08	-
0.25	N	0.1	0.12	39.20	-	61.92	51.92	22.48	-
0.29	H	0.1	0.13	29.20	-	60.55	50.55	31.09	-
0.61	H	0.2	0.16	32.75	29.57	56.00	46.00	22.89	16.07
0.67	N	0.2	0.16	33.33	-	56.00	46.00	21.31	-
0.79	H	0.2	0.19	32.09	-	56.00	46.00	23.52	-
1.22	H	0.2	0.26	31.42	27.31	56.00	46.00	24.10	18.21
1.89	H	0.3	0.29	33.03	-	56.00	46.00	22.40	-
4.68	N	0.3	0.37	35.29	31.59	56.00	46.00	20.04	13.74
5.49	H	0.3	0.40	34.28	-	60.00	50.00	25.00	-
6.83	H	0.4	0.45	32.78	-	60.00	50.00	26.38	-
7.59	N	0.4	0.50	27.38	-	60.00	50.00	31.68	-
8.05	H	0.5	0.53	20.58	-	60.00	50.00	38.42	-
9.22	N	0.5	0.60	16.38	-	60.00	50.00	42.47	-
23.85	H	0.9	0.93	30.47	28.74	60.00	50.00	27.72	19.45
Supplementary information : N/A									

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Table 4 : Test mode- RGB(Sharp Panel)

Test Frequency (MHz)	Line	Cable loss (dB)	Transducer Factor(dB)	Level (dBuV)		Limit (dBuV)		Margin (dB)	
				Q.P	AV	Q.P	AV	Q.P	AV
0.15	N	0.0	0.17	40.83	-	66.00	56.00	25.00	-
0.18	H	0.1	0.14	43.79	-	64.35	54.35	20.36	-
0.20	H	0.1	0.12	34.94	-	63.53	53.53	28.37	-
0.25	H	0.1	0.12	39.15	33.92	61.92	51.92	22.53	17.76
0.30	H	0.1	0.13	33.05	-	60.16	50.16	26.85	-
0.31	N	0.1	0.13	34.03	-	60.02	50.02	25.72	-
0.55	H	0.2	0.15	30.78	-	56.00	46.00	24.87	-
0.61	N	0.2	0.16	32.00	-	56.00	46.00	23.64	-
0.67	N	0.2	0.16	34.08	-	56.00	46.00	21.56	-
0.74	N	0.2	0.17	32.55	27.73	56.00	46.00	23.08	17.90
1.10	H	0.2	0.25	30.78	27.01	56.00	46.00	24.76	18.52
2.02	H	0.3	0.29	32.60	28.86	56.00	46.00	22.81	17.05
5.41	N	0.3	0.40	33.44	-	60.00	50.00	25.84	-
6.86	N	0.4	0.45	34.02	-	60.00	50.00	25.13	-
6.97	H	0.4	0.46	31.77	18.49	60.00	50.00	27.37	30.65
7.22	H	0.4	0.47	30.13	-	60.00	50.00	28.98	-
7.41	N	0.4	0.49	34.52	-	60.00	50.00	24.57	-
8.09	N	0.5	0.53	33.39	-	60.00	50.00	25.61	-
Supplementary information : N/A									

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Figure 9 : Test mode DVI-HOT Line(Sharp Panel)

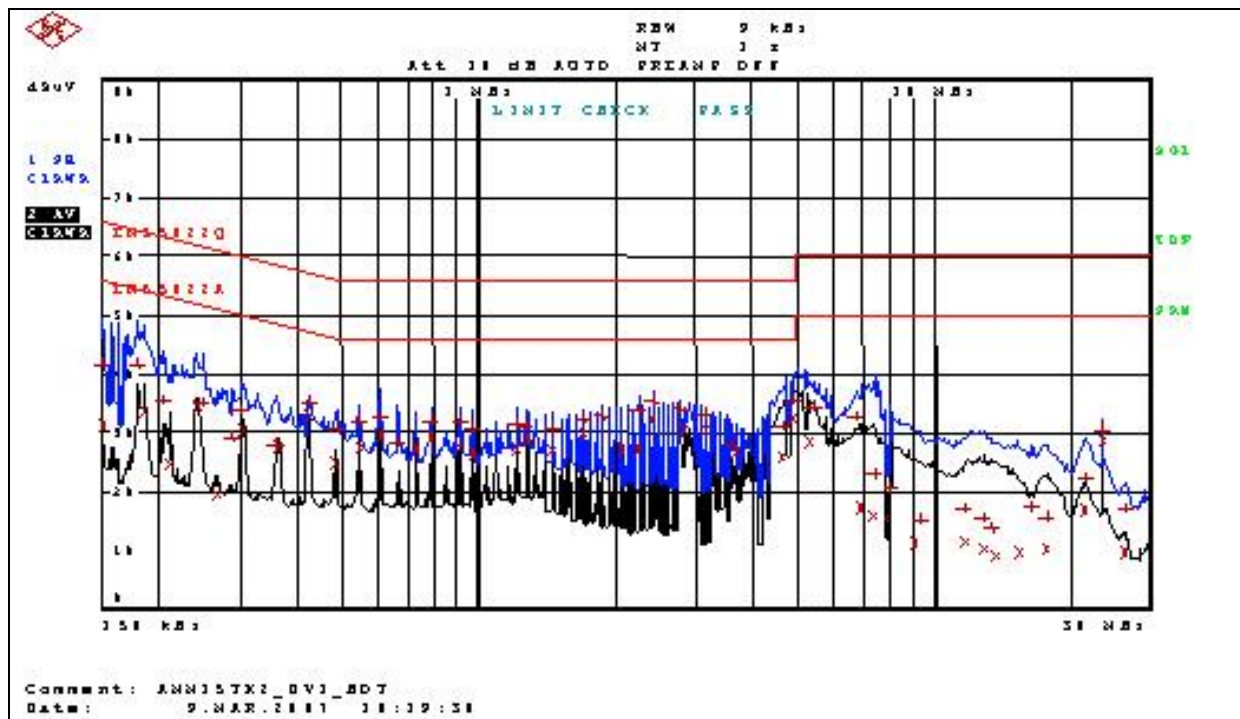
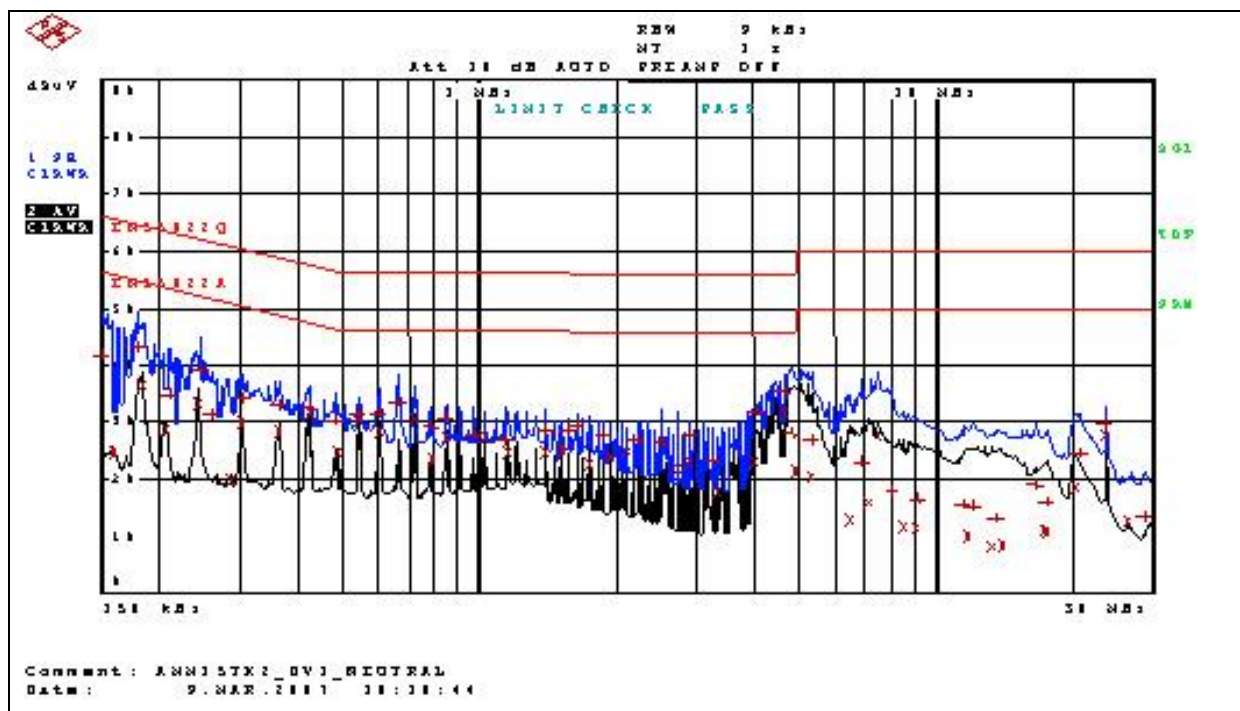


Figure 10: Test mode DVI-NEUTRAL Line(Sharp Panel)



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Figure 11 : Test mode RGB-HOT Line(Sharp Panel)

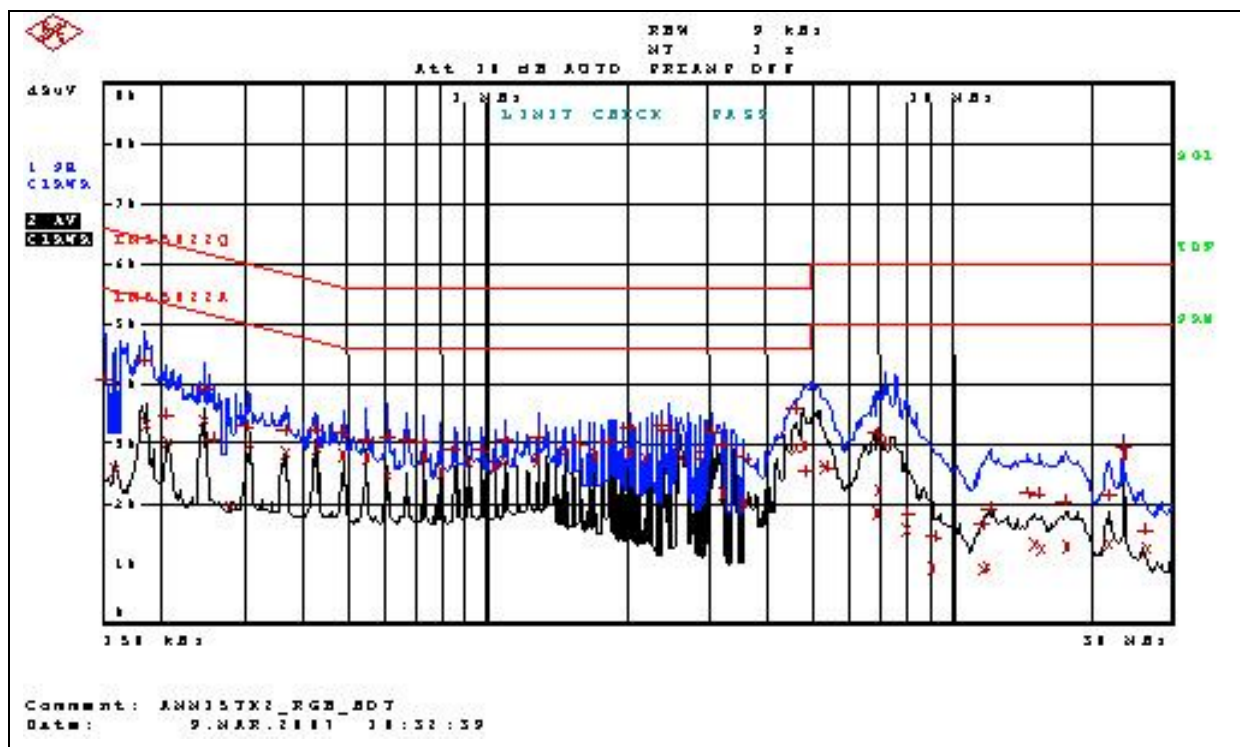
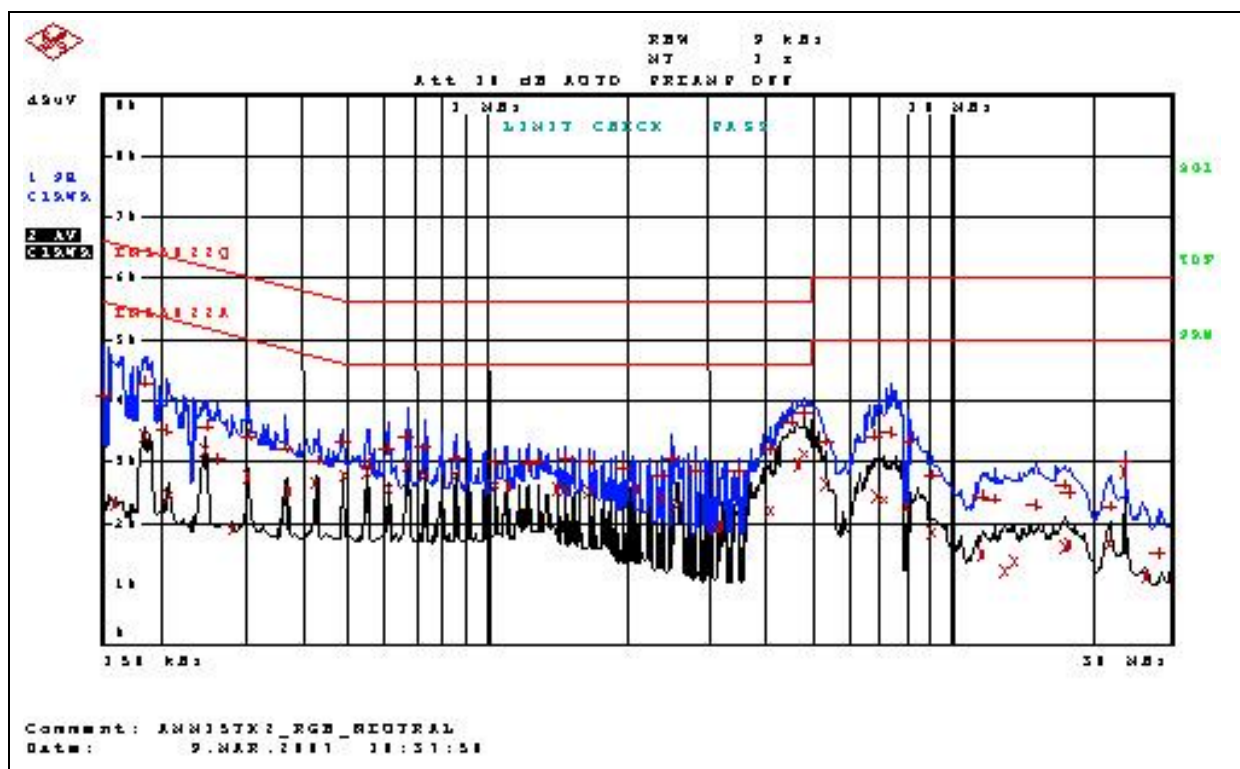


Figure 12: Test mode RGB-NEUTRAL Line(Sharp Panel)



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4 Test Conditions and Results – Radiated Emission

	TEST: Limits for radiated disturbance		
Method	Measurements were made at 10-meter open site that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at 1, 2, 3 and 4 meter heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.		—
Parameters required prior to the test	Laboratory Ambient Temperature	10 to 40 °C	
	Relative Humidity	10 to 90 %	
Parameters recorded during the test	Laboratory Ambient Temperature	14°C	
	Relative Humidity	55%	
	Frequency range	Measurement Point	
Fully configured sample scanned over the following frequency range	30MHz – 1GHz	(3 meter measurement distance)	
Limits - Class A(10m)			
Frequency (MHz)	Limit (dBµV/m)		
	Quasi-Peak	Results	
30 to 88	39.5		
88 to 216	43.5		
216 to 960	46.5		
Above 960	49.5		
Limits - Class B(3m)			
Frequency (MHz)	Limit (dBµV/m)		
	Quasi-Peak	Results	
30 to 88	40	PASS	
88 to 216	43.5	PASS	
216 to 960	46	PASS	
Above 960	54	PASS	

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Test Receiver	Rohde&Schwarz	ESVS10	838562/0052	2007.01.23	2008.01.23
Spectrum Analyzer	ADVANTEST	R3261C	61720116	2006.04.19	2007.04.19
Logbicon Antenna	Schwarzbeck	VULB 9160	3142	2006.05.15	2007.05.15
Amplifier	HP	8447F	2805A02972	2006.06.26	2007.06.26

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Figure 13 : Front for NEC Panel



Figure 14 : Rear for NEC Panel



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Table 5 :Test mode- DVI(NEC Panel)

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Deg.)	Antenna Height (cm)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit dBuV/m	Margin (dB)
81.00	26.75	QP	V	170	100	1.4	8.79	36.97	40.0	3.03
111.67	17.80	QP	V	310	100	1.6	11.10	30.55	43.5	12.95
135.01	11.30	QP	H	180	230	1.8	12.69	25.80	43.5	17.70
162.03	12.10	QP	V	90	100	2.0	13.90	27.96	43.5	15.54
180.22	7.60	QP	V	90	100	2.1	12.44	22.10	43.5	21.40
189.02	15.00	QP	H	180	200	2.1	12.57	29.68	43.5	13.82
195.46	14.20	QP	H	240	170	2.2	11.21	27.57	43.5	15.93
216.02	23.50	QP	H	240	160	2.3	10.72	36.50	46.0	9.50
221.20	19.30	QP	H	340	150	2.3	10.79	32.42	46.0	13.58
233.99	16.30	QP	H	110	140	2.5	11.33	30.08	46.0	15.92
252.01	26.10	QP	H	150	120	2.6	11.97	40.64	46.0	5.36
270.02	23.70	QP	H	140	100	2.8	12.47	38.94	46.0	7.06
351.00	11.00	QP	H	130	100	3.1	14.32	28.46	46.0	17.54
428.73	14.00	QP	H	120	100	3.5	15.92	33.46	46.0	12.54
472.50	22.30	QP	V	280	120	3.7	16.75	42.79	46.0	3.21
568.15	8.00	QP	V	286	100	4.2	18.35	30.51	46.0	15.49
648.04	6.00	QP	H	140	120	4.5	19.60	30.12	46.0	15.88
701.98	18.10	QP	H	170	100	4.7	20.18	42.93	46.0	3.07
Supplementary information : N/A										

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Table 6 : Test mode- RGB(NEC Panel)

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Deg.)	Antenna Height (cm)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit 1 dBuV/m	Margin (dB)
35.75	19.40	QP	H	40	400	1.0	12.41	32.84	40.0	7.16
59.64	14.60	QP	V	45	100	1.2	12.45	28.28	40.0	11.72
81.00	24.10	QP	V	180	100	1.4	8.79	34.32	40.0	5.68
110.31	22.00	QP	V	330	100	1.6	11.07	34.72	43.5	8.78
135.00	12.00	QP	H	175	220	1.8	12.69	26.50	43.5	17.00
170.09	10.20	QP	H	180	180	2.0	13.33	25.53	43.5	17.97
180.17	9.40	QP	H	90	170	2.1	12.44	23.90	43.5	19.60
189.01	16.60	QP	H	180	180	2.1	12.57	31.28	43.5	12.22
216.00	25.80	QP	H	170	140	2.3	10.72	38.80	43.5	4.70
221.17	21.00	QP	H	350	150	2.3	10.79	34.12	46.0	11.88
252.00	22.20	QP	H	160	100	2.6	11.97	36.74	46.0	9.26
270.01	23.60	QP	H	150	120	2.8	12.47	38.84	46.0	7.16
288.00	17.40	QP	H	170	100	2.8	12.98	33.18	46.0	12.82
351.02	11.20	QP	H	140	100	3.1	14.32	28.66	46.0	17.34
432.01	10.00	QP	V	120	130	3.5	16.01	29.55	46.0	16.45
454.51	12.40	QP	H	120	100	3.6	16.43	32.44	46.0	13.56
537.99	7.80	QP	V	100	150	4.1	17.64	29.50	46.0	16.50
570.45	13.70	QP	V	100	140	4.2	18.41	36.27	46.0	9.73
648.01	7.40	QP	H	150	120	4.5	19.60	31.52	46.0	14.48
702.00	15.40	QP	V	180	100	4.7	20.18	40.23	46.0	5.77
973.90	12.10	QP	V	130	100	5.9	23.44	41.39	54.0	12.61
Supplementary information : N/A										

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Figure 15 : Front for Sharp Panel



Figure 16 : Rear for Sharp Panel



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Table 7 :Test mode- DVI(Sharp Panel)

Test Frequency (MHz)	Meter Reading (dBUV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Deg.)	Antenna Height (cm)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBUV/m	Limit dBUV/m	Margin (dB)
59.62	14.20	QP	V	60	100	1.2	12.45	27.88	40.0	12.12
81.14	24.20	QP	V	180	100	1.4	8.79	34.42	40.0	5.58
110.32	19.00	QP	V	330	100	1.6	11.07	31.72	43.5	11.78
135.00	10.10	QP	H	190	240	1.8	12.69	24.60	43.5	18.90
162.00	12.10	QP	H	100	220	2.0	13.90	27.96	43.5	15.54
189.02	13.00	QP	H	190	180	2.1	12.57	27.68	43.5	15.82
195.43	13.40	QP	H	250	170	2.2	11.21	26.77	43.5	16.73
216.01	22.60	QP	H	250	160	2.3	10.72	35.60	46.0	10.40
221.20	17.40	QP	H	350	150	2.3	10.79	30.52	46.0	15.48
234.00	17.50	QP	H	120	140	2.5	11.33	31.28	46.0	14.72
252.01	26.30	QP	H	160	120	2.6	11.97	40.84	46.0	5.16
270.00	26.20	QP	H	150	100	2.8	12.47	41.44	46.0	4.56
351.02	14.90	QP	V	140	100	3.1	14.32	32.36	46.0	13.64
428.75	12.70	QP	V	130	100	3.5	15.92	32.16	46.0	13.84
472.51	22.50	QP	V	290	100	3.7	16.75	42.99	46.0	3.01
540.26	9.00	QP	H	270	100	4.1	17.69	30.75	46.0	15.25
648.06	4.80	QP	H	150	130	4.5	19.60	28.92	46.0	17.08
701.99	6.40	QP	V	180	100	4.7	20.18	31.23	46.0	14.77
Supplementary information : Ferrite core was connected to S-Video, DVI and adapter ports for radiated emission										

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Model Number: ES150

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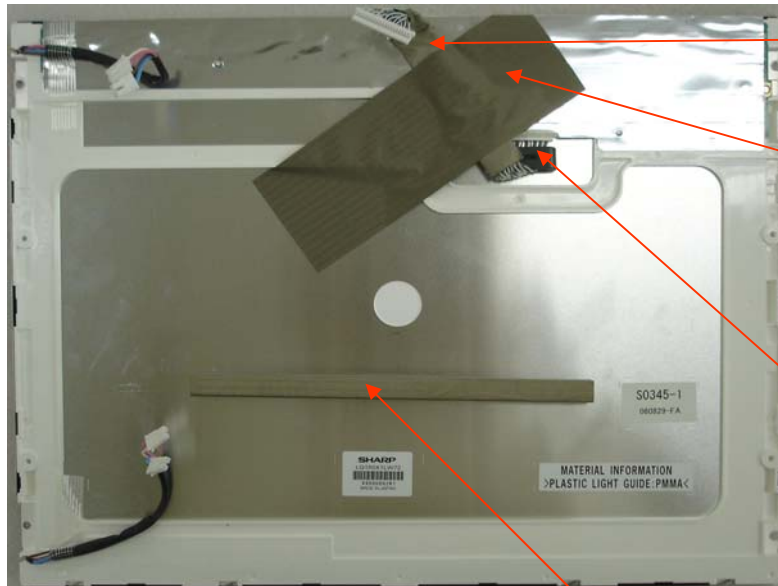
Table 8 : Test mode- RGB(Sharp Panel)

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Deg.)	Antenna Height (cm)	Gain/Loss Factor (dB)	Transducer Factor (dB/m)	Level dBuV/m	Limit 1 dBuV/m	Margin (dB)
81.00	24.40	QP	V	175	100	1.4	8.79	34.62	40.0	5.38
110.32	16.40	QP	V	320	100	1.6	11.07	29.12	43.5	14.38
135.00	11.40	QP	H	190	260	1.8	12.69	25.90	43.5	17.60
162.82	15.80	QP	H	100	240	2.0	13.90	31.67	43.5	11.83
189.02	12.30	QP	H	180	180	2.1	12.57	26.98	43.5	16.52
195.44	11.80	QP	H	240	160	2.2	11.21	25.17	43.5	18.33
202.54	12.40	QP	H	350	180	2.2	10.44	25.01	43.5	18.49
216.01	22.40	QP	H	250	160	2.3	10.72	35.40	35.40	10.60
221.19	17.20	QP	H	330	140	2.3	10.79	30.32	30.32	15.68
234.01	19.50	QP	H	120	130	2.5	11.33	33.28	33.28	12.72
252.01	23.00	QP	H	150	100	2.6	11.97	37.54	37.54	8.46
270.00	22.60	QP	H	145	160	2.8	12.47	37.84	37.84	8.16
288.02	18.20	QP	H	160	120	2.8	12.98	33.98	33.98	12.02
351.03	13.60	QP	H	130	100	3.1	14.32	31.06	31.06	14.94
432.04	9.10	QP	H	110	100	3.5	16.01	28.65	28.65	17.35
540.01	5.20	QP	H	280	100	4.1	17.68	26.94	26.94	19.06
621.02	4.70	QP	H	140	100	4.4	19.22	28.33	28.33	17.67
702.01	7.10	QP	V	160	100	4.7	20.18	31.93	31.93	14.07
Supplementary information : Ferrite core was connected to S-Video, DVI and adapter ports for radiated emission										

5 EUT Modifications

1. SHARP LCD Panel

1.1 On LCD Panel



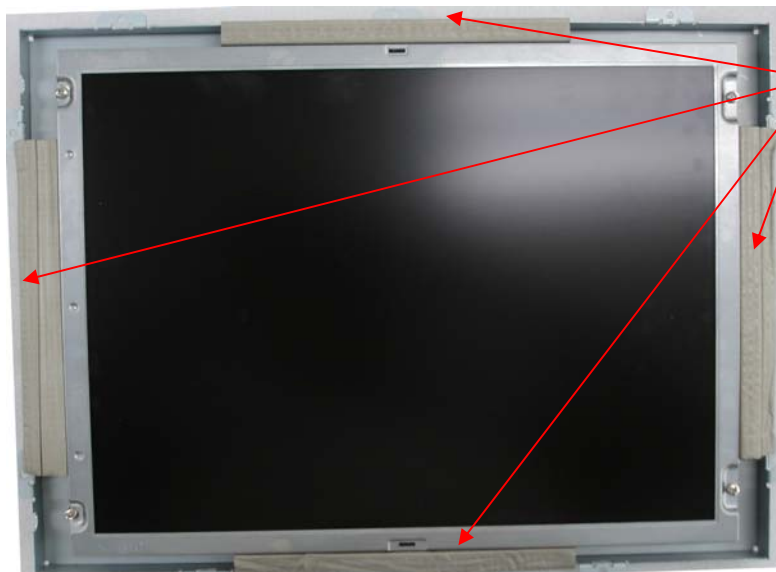
Wrap the cable with
EMI tape

Touch aluminum body of
panel and aluminum
beaten sliver paper with
EMI tape

Insert the ferrite core to
cable
Maker : SCC Co.,Ltd
Part no : PC2910

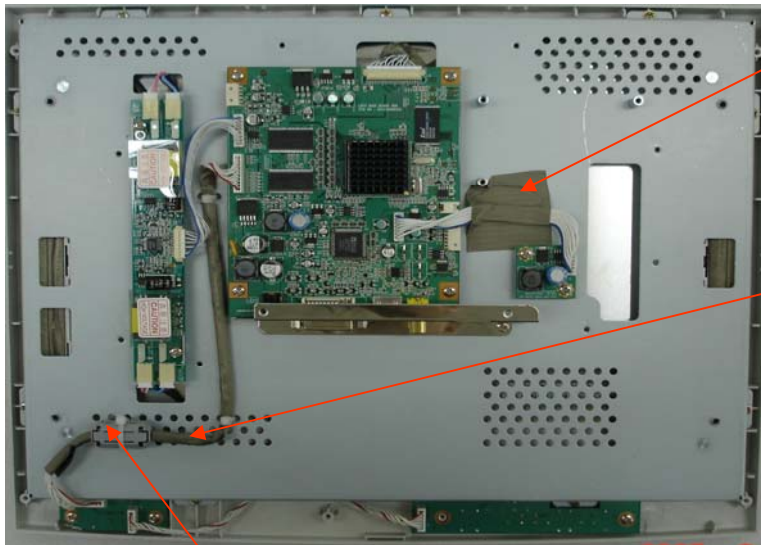
Attach EMI form gasket to make contact with LCD panel and
main chassis.

1.2 Between LCD panel and main chassis



Insert 4 EMI form gasket to
space between side of LCD
panel and main chassis to
make wide ground.

1.3 Board and wiring



Cover the cable with EMI tape.

Wrap the cable with EMI tape and contact with main chassis by using cable tier.

Insert the ferrite core to the cable
Maker : TDK corporation, Part No : ZCAT1730-0730A-M-K

1.4 Shielding Board

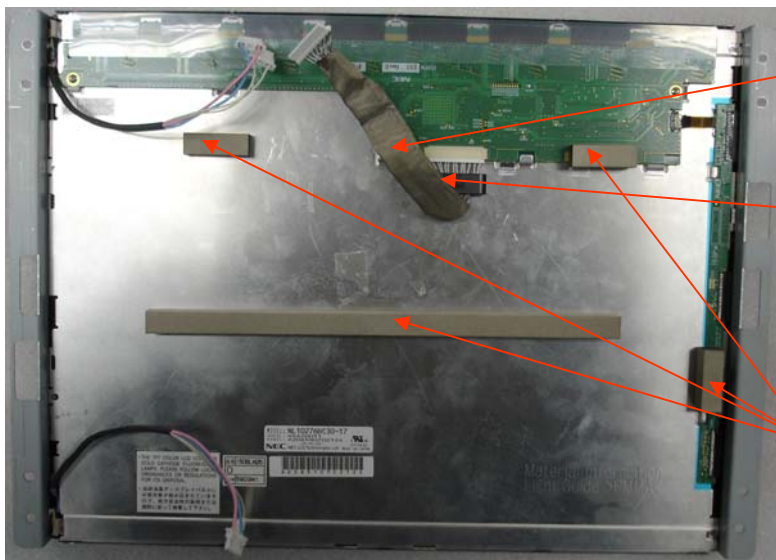


Cover the shield coverlet

Cover this point with EMI tape

2. NEC LCD Panel

2.1 On LCD Panel



Wrap the cable with
EMI tape

Insert the ferrite core to
cable
Maker : SCC Co.,Ltd
Part no : PC2910

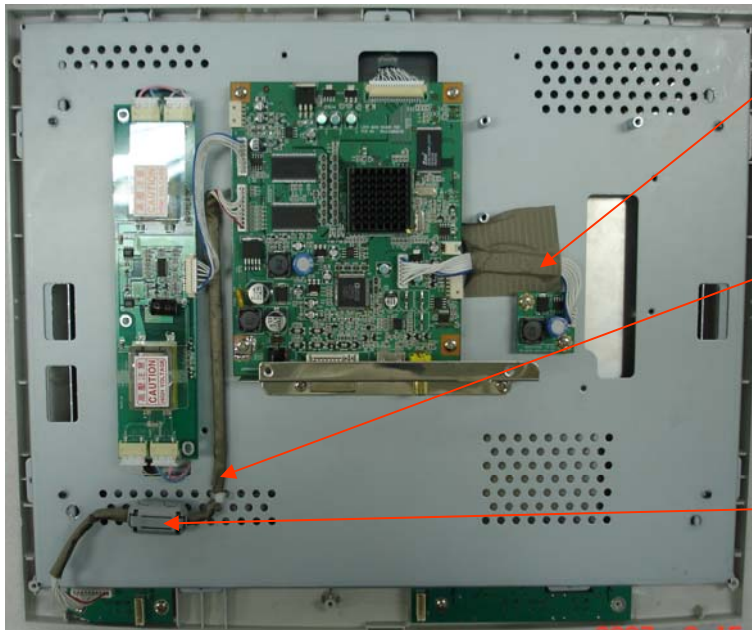
Attach EMI form gasket to
make contact with LCD panel
and main chassis.

2.2 Between LCD panel and main chassis



Insert 1 EMI form
gasket to space between
side of LCD panel and
main chassis to make
wide ground.

2.3 Board and wiring



Cover the cable with
EMI tape.

Wrap the cable with EMI tape
and contact with main chassis
by using cable tier.

Insert the ferrite core to the
cable
Maker : TDK corporation
Part No : ZCAT1730-0730A-
M-K

2.4 Shielding Board



Cover the shield coverlet

Cover this point with
EMI tape

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3. DC Power adapter cable (Apply both SHARP and NEC LCD)

