Underwriters Laboratories Inc.



www.ul.com/emc www.ulk.co.kr

Project: 11CA16184

File: TC8352

Report: 11CA16184-FCC

Date: May 17, 2011 Model: AMM240WTD

FCC Certification Report

For

LCD Color Medical Monitor

ADVAN Int'l Corp.
47817 Fremont Blvd. Fremont CA 94538, Fremont, California, U.S.A

Copyright © 2005 Underwriters Laboratories Inc.

Underwriters Laboratories Inc. authorizes the above-named company to reproduce this Report provided it is reproduced in its entirety.

Only those products bearing the UL Mark should be considered as being covered by UL.

Project Number: 11CA16184 File Number TC8352 Page 2 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

Summary of Test Results:

The foll	The following tests were performed on a sample submitted for evaluation of compliance with 47 CFR Part						
15.107 (15.107 (a) / 47 CFR Part 15.109 (g) Class B.						
Test	Test Name Compliant Not See Remark						
#	Test Requirement/Specification Compliant						
1	AC Power line Conducted Emission Test X						
2	Radiated Emission Test	X	-	-			

Conclusion:

The tests listed in the Summary of Testing section of this report have been performed as a witness testing and the results recorded by UL Korea Ltd. in accordance with the procedures stated in each test requirement and specification. The test list was determined by the Applicant as being applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

\boxtimes	Met the technical requirements
	Not met the technical requirement

Juney/doon.

Tested by Sung Hoon Baek, Project Engineer Conformity Assessment Services – 3014ASEO UL Korea Ltd. May 19, 2011

Reviewed by

Jeawoon, Choi, Senior Project Engineer Conformity Assessment Services - 3014ASEO

UL Korea Ltd. May 19, 2011 Project Number: 11CA16184 File Number TC8352 Page 3 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

Test Report Details

Test Report No: 11CA16184-FCC

File No TC8352

Tests Performed By: UL Korea Ltd.

33rd FL. GFC Bldg. 737 Yeoksam-dong, Kangnam-ku, Seoul, 135-

984, Korea

Test Site: CHUNGBUK TECHNOPARK

685-3 Yangcheong-ri, Ochang-eub, Cheongwon-kun, Chungbuk-

province, Republic of Korea

The test facility was deemed to have the environment and capabilities

necessary to perform the tests included in the test package.

Applicant: ADVAN Int'l Corp.

47817 Fremont Blvd. Fremont CA 94538, Fremont, California,

U.S.A

Manufacturer: ADVAN Int'l Corp.

47817 Fremont Blvd. Fremont CA 94538, Fremont, California,

U.S.A

Factory D&T Inc.

59-9 JANG-DONG YUSEONG-GU DAEJEON 305-343 KOREA

Trademark: N/A

Project Number: 11CA16184 File Number TC8352 Page 4 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

Applicant Contact: Jun Ho Jang

Title: Regulatory Manager

Phone: 82-2-703-5197

E-mail: andyjang@advancorp.com

Product Type: LCD Color Medical Monitor

Model Number: AMM240WTD

Model Number multiple N/A

listing:

The manufacturer has declared to all the multiple Model names into

the basic Model without any further evaluation by UL.

Product standards: 47 CFR Part 15.107 (a) / 47 CFR Part 15.109 (g) Class B.

Test Procedure ANSI C63.4: 2003

Sample Serial Number: N/A

Sample Receive Date: April 18, 2011
Testing Start Date: April 18, 2011
Date Testing Complete: April 22, 2011
Test Report Date: May 17, 2011

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.

Project Number: 11CA16184 File Number TC8352 Page

Model Number: AMM240WTD
Client Name: ADVAN Int'l Corp.

REPORT DIRECTORY

5 of 47

1. G	GENERAL PRODUCT DESCRIPTION:	6
1.1	REPORT REVISION HISTORY:	6
1.2	EQUIPMENT DESCRIPTION:	6
1.3	DETAILS OF EQUIPMENT UNDER TEST (EUT):	6
1.4	EUT INTERNAL OPERATING FREQUENCY:	7
1.5	TECHNICAL DESCRIPTION AND DOCUMENT:	
1.6	EQUIPMENT MARKING PLATE:	
2. T	TEST CONDITION:	9
2.1	EQUIPMENT USED DURING TEST:	9
2.2	INPUT/OUTPUT PORTS:	9
2.3	POWER INTERFACE:	10
2.4	EUT OPERATION MODES:	10
2.5	MODES OF VIDEO RESOLUTION:	10
2.6	USED D.C. EXTENSION CABLE FOR EMC TEST:	10
2.7	TEST CONFIGURATION:	11
2.8	EXTENSION CABLE OF ADAPTER TO EUT TEST CONFIGURATION:	12
3. T	TEST RESULT:	12
4. T	TEST CONDITION AND RESULTS:	13
4.1	MAINS TERMINAL DISTURBANCE VOLTAGE TEST:	13
4.2	RADIATED DISTURBANCE:	22
APPEN	NDIX A: TEST FACILITY:	29
APPEN	NDIX B: MEASUREMENT UNCERTAINTIES:	29
APPEN	NDIX C. FUT PHOTOS.	30

Project Number: 11CA16184 File Number TC8352 Page 6 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

1. General product description

1.1 Equipment Description

	Description:
LCD Color Medical Monitor	

1.2 Details of Test Equipment (EUT)

	Equipment Configuration:					
No.	Product Type	Manufacturer Model		Comments		
1	LCD Color Medical Monitor	ADVAN Int'l Corp.	AMM240WTD	-		
2	AC/DC Adapter	BridgePower Corp	JMW1150KA2400F04	-		
3	DVI cable	-	-	1 EA		
4	VGA cable	-	-	1 EA		
5	BNC cable	-	-	1 EA		
6	S-Video cable	-	-	1 EA		

1.3 Technical Data:

Item		Description	
Model		AMM240WTD	
LCD Panel	Description	24.1Inch(61.13cm) diagonal	
	Resolution	1920 x 1200 @ 60hz	
	Display color	1,073,741,824 colors	
	Pixel Pitch	0.270 mm x 0.270 mm	
Brightness Brightness		280 cd/m2	
Contrast	Contrast	700 : 1	
Display Size		518.4mm x 324.0mm)	
Scanning	Horizontal	31.47~79.98Khz	
Frequency	Vertical	50~85Hz	

Project Number: 11CA16184 File Number TC8352 Page 7 of 47

Model Number: AMM240WTD
Client Name: ADVAN Int'l Corp.

Input / Output		Input	Output	
		1 x DVI 1 x D-SUB 1 x Y-C 1 x C-Video/SOG 2 x SDI 1 x R/Pr, G/Y, B/Pb, H/CS,VS	1 x Y-C 1 x C-Video 1 x SDI 1 x R/Pr, G/Y, B/Pb, H/CS,VS	
Temperature	Operating	32° ~ 95°F (0° - 35°C)		
	Storage	-4° ~ 140°F (-20° - 60°C)		
Power Source Monitor		DC 24V 6.25A		
AC-Adaptor		AC 100~240V 50/60Hz		
Unit Dimension	•	598(W) x 382.9(H) x 111.5(D) (mm) - Without stand		

1.4 EUT Internal operating frequency

Frequency (MHz)	Description	Frequency (MHz)	Description
77MHz	Display Frequency	10.00MHz	CPLD Clock
11.0592MHz	U-Com Frequency	27.00MHz	System Clock
324.00MHz	Memory Clock	-	-

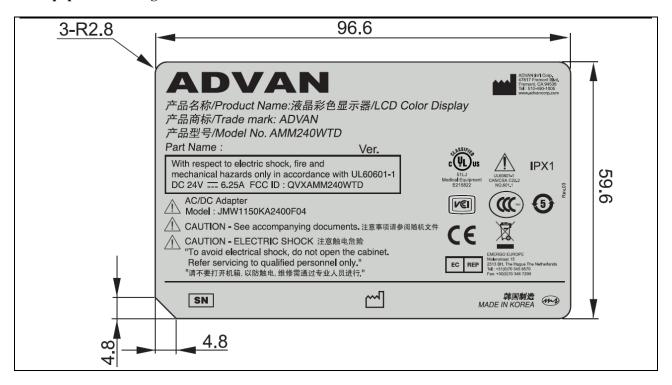
1.5 Technical descriptions and documents:

No.	Document Title and Description			
1	Auto-Scanning with Digital Control LCD Color Medical Monitor Operation Manual			
Note: T	Note: The manufacturer provided the following document.			

Project Number: 11CA16184 File Number TC8352 Page 8 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

1.6 Equipment Marking Plate:



Project Number: 11CA16184 File Number TC8352 Page 9 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

2. Test condition

2.1 Equipment Used During Test:

Use*	Product Type	Manufacturer	Model	Comments	
EUT	LCD Color Medical Monitor	ADVAN Int'l Corp.	AMM240WTD	-	
EUT	AC/DC adapter	Bridge Power Corp.	JMW1150KA2400F**	-	
AE	PC	DELL	OPTIPLEX 760	Used for DVI, D-sub	
AE	USB mouse	DELL	M-UAR DEL7	-	
AE	USB Keyboard	DELL	SK8175	-	
AE	Headset	PILLAR	CH-1700	-	
AE	Printer	SAMSUNG	ML-2250G	-	
AE	HD & SD Test Generator	Doremi	HDG-20	Used for SDI Mode	
AE	Pattern generator	Chroma	22291	Used for C-video, S-Video and Component Mode	
AE	LCD Color Display	ADVAN Int'l Corp.	0240030990	Used for SDI out function	
AE	AC/DC adapter	Bridge Power Corp.	JMW1150KA2400F**	Connected to LCD monitor	
AE	Extension Cable	-	1501047006	75-ft DC extension Cable	
AE	Extension Cable	-	1501047005	15-ft DC extension Cable	
AE	Extension Cable	-	1501047004	5-ft DC extension Cable	
* Note:	Note: EUT - Equipment Under Test, AE - Auxiliary/Associated Equipment, SIM - Simulator (Not Subjected to Test)				

2.2 Input/output Ports:

Port	Name	Type*	Cable	Cable	Comments
#			Max. >3m	Shielded	
1	Mains	AC	1.8 m	Unshielded	Hospital-grade AC Power cord
2	DVI In	I/O	1.8 m	Shielded	29 pin DVI-I
3	VGA In	I/O	1.8 m	Shielded	15 pin D-Sub
4	SDI In, Out	I/O	1.8 m	Shielded	BNC
5	S-Video In	I/O	1.8 m	Shielded	S-Video
6	C-Video In	I/O	1.8 m	Shielded	BNC
7	Component (Y/Pb/Pr) In	I/O	1.8 m	Shielded	5 Port BNC

^{*} Note: *AC= AC Power Port, DC = DC Power Port, N/E = Non-Electrical, I/O = Signal Input or Output Port (Not Involved in Process Control),

TP = Telecommunication Ports

^{*} RS-232 port is used for service purpose only. No user interface port.

Project Number: File Number TC8352 10 of 47 11CA16184 Page

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

2.3 Power Interface:

Mode #	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Comments
Rated	100-240Vac	- 150W		50-60Hz	-
1	AC 120 V		-	60Hz	-

2.4 EUT Operation Modes:

Mode #	Mode	Comments
1	DVI Mode	Worst case condition
2	VGA Mode	-
3	SDI In/Out Mode	Worst case condition
4	S-VIDEO Mode	-
5	C-Video / SOG Mode	-
6	Component (Y/Pb/Pr) Mode/ Analog RGBS Mode	-

* Note:

- 1. All the configuration described above has been investigated during the preliminary testing and selected two cases as worst-case condition for final measurements.
- 2. EUT have been performed under continuous displaying "H" Patten for configuration Modes of 1 to 2
- 3. EUT has been performed under continuous displaying "Color Bar" Patten for configuration Modes of 3 to 6.

2.5 Modes of Video resolution

	Mode #	Resolution	Comments							
1		800 * 600 @ 60Hz	-							
2	DVI Mode	1024 * 768 @ 60Hz	-							
3		1920 * 1200 @ 60Hz	Worst case condition							
4 SDI In/Out 1080p Worst case condition										
* Note: \	* Note: Video resolution where it refers from above is representative worst case.									

2.6 Used D.C. Extension Cable for EMC Test:

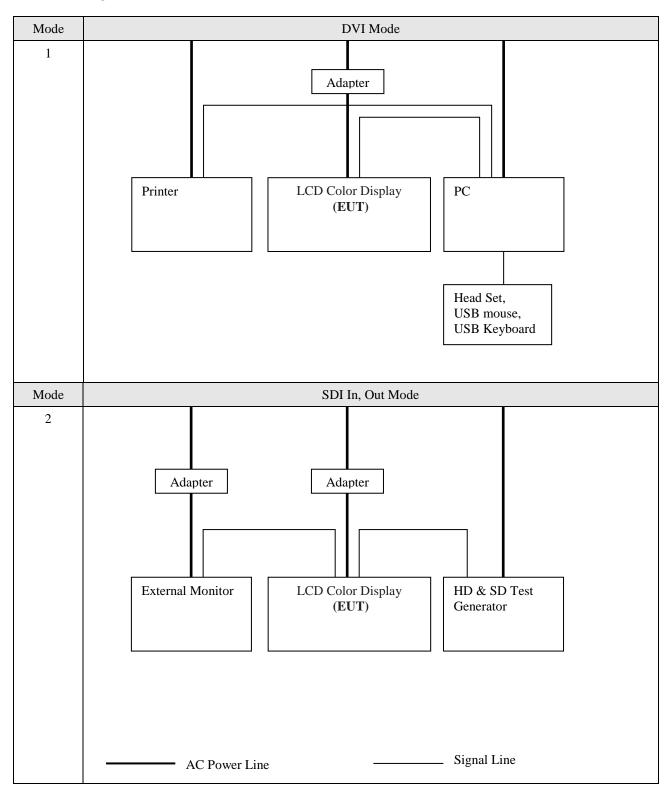
No.	Cable Length	Preliminary Test	Comment
1	5ft	DVI and SDI In/Out Mode	-
2	15ft		-
3	75ft		Worst case condition

^{*} Note: Radiated emission and conducted emission test were performed for all extension power cable during the preliminary testing and selected worst-case condition (75ft) for final measurements.

Project Number: 11CA16184 File Number TC8352 Page 11 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

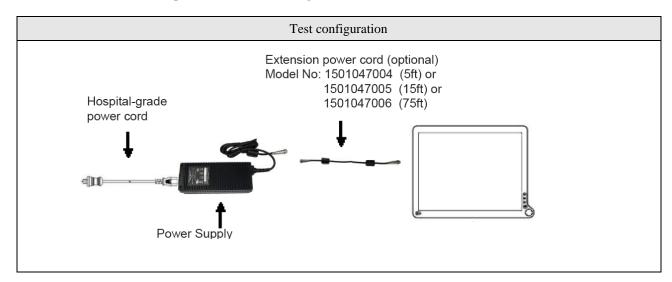
2.7 Test Configuration:



Project Number: 11CA16184 File Number TC8352 Page 12 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

2.8 Extension cable of Adapter to EUT Test Configuration:



3. RESULT OF TESTING:

No	Test requirements	Standard	Results	Verdict
1	AC Power line Conducted Emission Test	47 CFR Part 15.107(a) / 47 CFR Part 15.109(g) Class B	Met limit Class B	Complied
2	Radiated Emission Test		Met limit Class B	Complied

^{*} Note: This product has been tested in accordance with the measurement procedures specified 47 CFR Part 15.107 (a) / 47 CFR Part 15.109 (g) Class B at the CBTP EMC Laboratory and the test results has been shown to be complied with the EMC requirements specified in the standard above.

Project Number: 11CA16184 File Number TC8352 Page 13 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

4. TEST CONDITION AND RESULTS

4.1 MAINS TERMINAL DISTURBANCE VOLTAGE TEST

	TES	T: Limi	ts of mains terminal distu	ırbance	voltag	ge	
Method	the system und	er test.	ade on a ground plane that All power was connected ducted voltage measurem	l to the	system	through A	artificial Mains
Danamatana na andada	1	I	Laboratory Ambient Tem	peratur	e	24.2 °C	
Parameters recorded of	during the test	I	Relative Humidity			34.7 %	
-		I	Frequency range on each	side of	line	Measurer	nent Point
Fully configured sample following frequency r		the (0.15 MHz to 30 MHz			AC input	port of Adapter
			Limits - Class B				
			Limit (dBμV)			
Frequency (MHz)	Quasi-Pea	ık	Result	Average		ıge	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
		E	UT Configuration Setti	ngs:			
Power Interface	e Mode #		EUT Operation Mode #			EUT Conf	igurations Mode #
(See Section	n 2.3)		(See 2.4)			(See	Section 2.7)
1			1, 3				1, 2
	C	onducte	ed Emissions Test Equip	oment u	ısed:		
Description	Manufacturer		Model	Identi	fier		Cal. Due
Test Receiver	Rohde & Sch	warz	ESPI	10108	38		2011.06.17
LISN	Rohde & Sch	warz	ESH2-Z5	10014	16		2011.06.18
LISN	Schwarzbeck		NNLK8129	81291	162		2011.06.18
Pulse Limiter	Rohde & Sch	warz	ESH3-Z2	3057.	8810.5	54	2011.06.18

Project Number: 11CA16184 File Number TC8352 Page 14 of 47

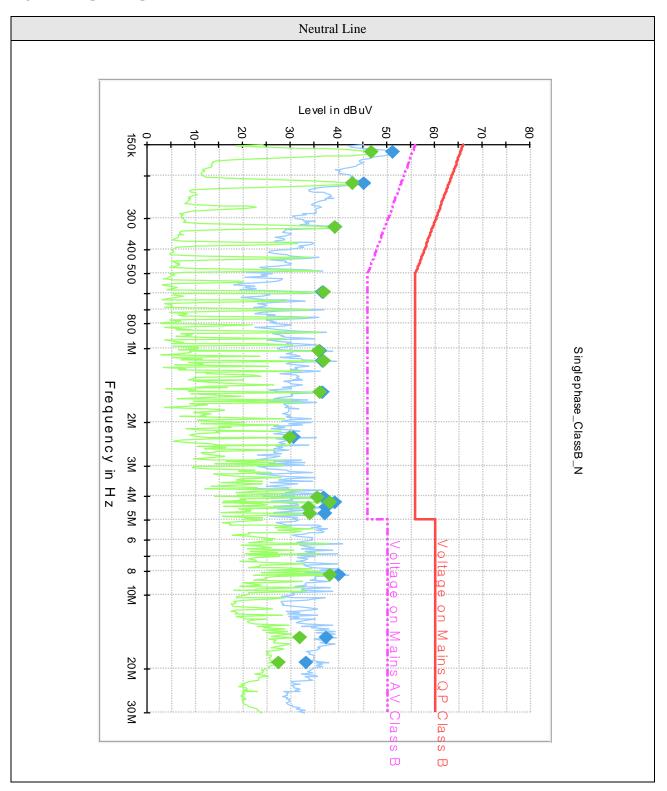
Figure 1. Conducted Emission Test Setup for DVI Mode:





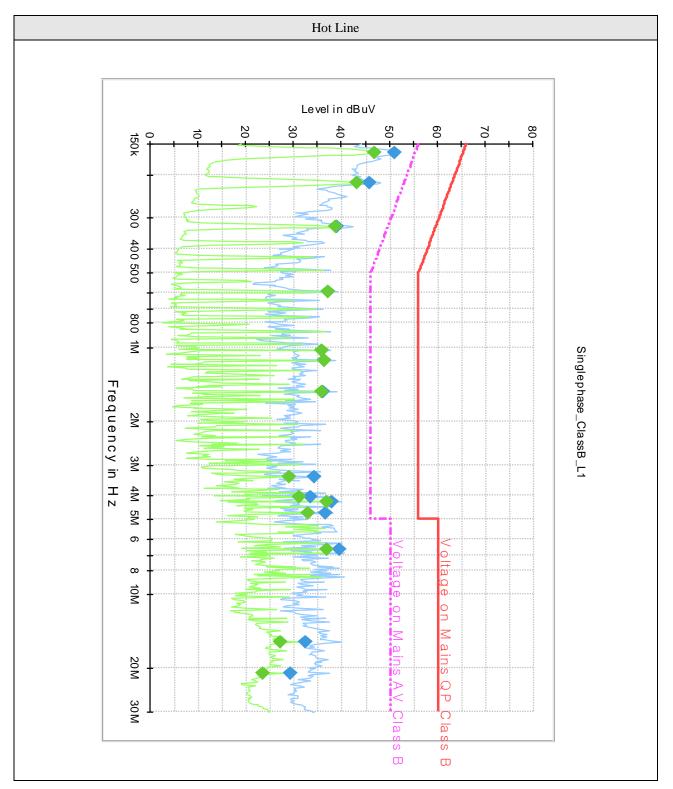
Project Number: 11CA16184 File Number TC8352 Page 15 of 47

Figure 2. Graphical representation for DVI Mode:



Project Number: 11CA16184 File Number TC8352 Page 16 of 47

Figure 3. Graphical representation for DVI Mode:



Project Number: 11CA16184 File Number TC8352 Page 17 of 47

Table 1. Test data of DVI Mode:

Test Frequency	Correction Factor (dB)			Reading value (dBuV)		Level	(dBuV)	Limit (dBuV)		Margin (dB)	
(MHz)	Cable	LISN	QP	AV		QP	AV	QP	AV	QP	AV
0.161	9.78	0.12	41.20	36.80	N	51.10	46.70	65.00	55.00	13.90	8.30
0.162	9.78	0.12	40.90	36.70	L1	50.80	46.60	65.00	55.00	14.20	8.40
0.215	9.78	0.12	35.80	33.20	L1	45.70	43.10	63.00	53.00	17.30	9.90
0.592	9.75	0.15	27.00	27.10	L1	36.90	37.00	56.00	46.00	19.10	9.00
1.131	9.82	0.18	26.60	26.60	N	36.60	36.60	56.00	46.00	19.40	9.40
1.509	9.81	0.19	26.40	26.10	N	36.40	36.10	56.00	46.00	19.60	9.90
4.205	10.03	0.27	28.80	27.80	N	39.10	38.10	56.00	46.00	16.90	7.90
4.691	10.01	0.29	26.10	22.60	L1	36.40	32.90	56.00	46.00	19.60	13.10
6.580	10.13	0.37	28.80	26.30	L1	39.30	36.80	60.00	50.00	20.70	13.20

^{*} Note:

^{1.} Margin (dB)= Limit (dBuV) - Level (dBuV)

^{2.} If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

Project Number: 11CA16184 File Number TC8352 Page 18 of 47

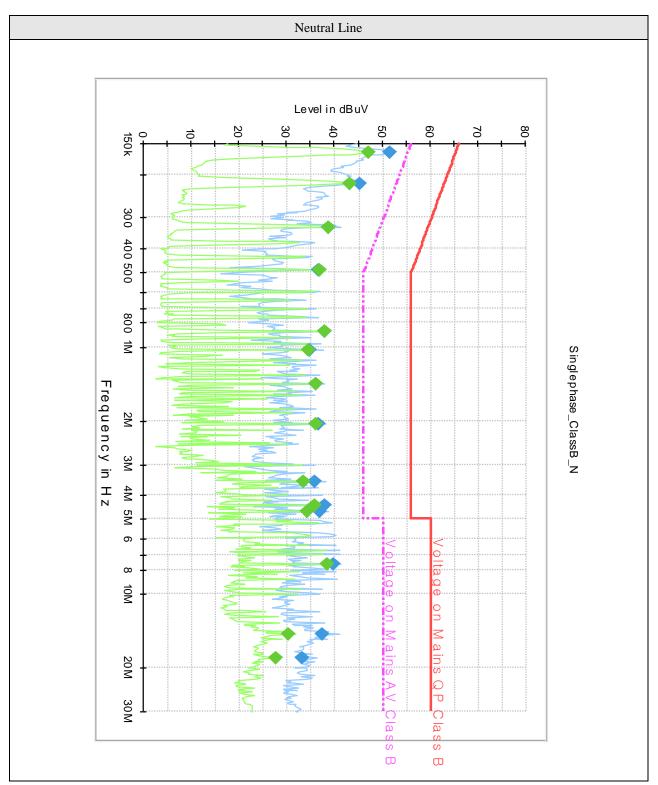
Figure 4. Conducted Emission Test Setup for SDI In/Out Mode:





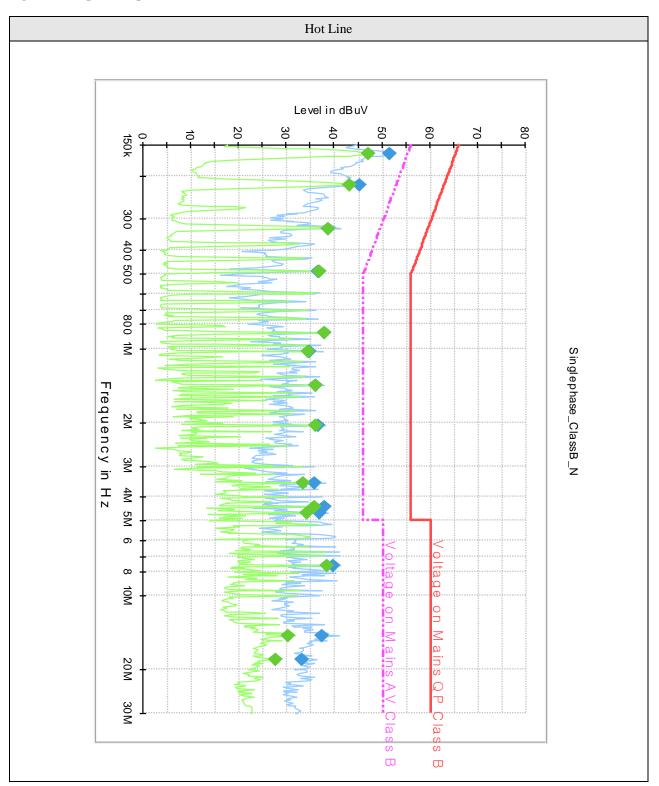
Project Number: 11CA16184 File Number TC8352 Page 19 of 47

Figure 5. Graphical representation for SDI In/Out Mode:



Project Number: 11CA16184 File Number TC8352 Page 20 of 47

Figure 6. Graphical representation for SDI In/Out Mode:



Project Number: 11CA16184 File Number TC8352 Page 21 of 47

Table 2. Test data for SDI In/Out Mode:

Test Frequency	Correction Factor (dB)		Reading value (dBuV)		Line	Level (dBuV)		Limit (dBuV)		Margin (dB)	
(MHz)	Cable	LISN	QP	AV		QP	AV	QP	AV	QP	AV
0.162	9.78	0.12	41.40	36.90	N	51.30	46.80	65.00	55.00	13.70	8.20
0.215	9.78	0.12	35.80	33.20	L1	45.70	43.10	63.00	53.00	17.30	9.90
0.217	9.78	0.12	35.30	33.20	N	45.20	43.10	63.00	53.00	17.80	9.90
0.485	9.76	0.14	26.70	26.80	N	36.60	36.70	56.00	46.00	19.40	9.30
0.592	9.75	0.15	27.00	27.10	L1	36.90	37.00	56.00	46.00	19.10	9.00
0.864	9.83	0.17	27.80	27.90	N	37.80	37.90	56.00	46.00	18.20	8.10
1.024	9.82	0.18	25.80	25.60	L1	35.80	35.60	56.00	46.00	20.20	10.40
1.131	9.82	0.18	26.20	26.30	L1	36.20	36.30	56.00	46.00	19.80	9.70
1.407	9.81	0.19	26.00	26.00	N	36.00	36.00	56.00	46.00	20.00	10.00
1.509	9.81	0.19	26.00	25.60	L1	36.00	35.60	56.00	46.00	20.00	10.40
2.054	9.90	0.20	26.40	25.90	N	36.50	36.00	56.00	46.00	19.50	10.00
4.205	10.03	0.27	27.40	26.40	L1	37.70	36.70	56.00	46.00	18.30	9.30
4.376	10.02	0.28	27.40	25.40	N	37.70	35.70	56.00	46.00	18.30	10.30

^{*} Note:

^{1.} Margin (dB)= Limit (dBuV) - Level (dBuV)

^{2.} If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

Project Number: 11CA16184 File Number TC8352 Page 22 of 47

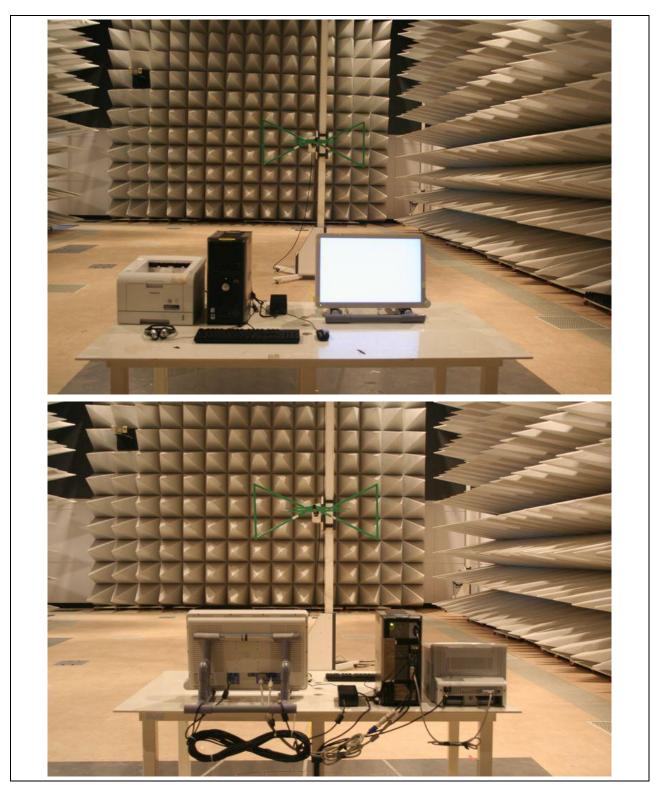
Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

4.2 RADIATED DISTURBANCE

		TEST: Limits fo	or radiated disturbanc	e								
Method	A pretest was performed at 3m distances in an anechoic screened enclosure, scanning the frequency range, and locating any frequencies at the which EUT radiated. Frequency scans were conducted with a peak detector with horizontal and vertical polarization of the antenna. Measurements were done in the frequency range 30-1000 MHz. The main test was then conducted by measurements at each frequency found in the pretest. These measurements were done at an open area test site at 10m distances, with a quasi-peak detector. EUT was positioned on a wooden table 0.8m above the floor, at the edge of the turntable. Cables connected to EUT were fixed to cause maximum emission. A maximum emitting point for each frequency was found by turning EUT 0-360 degrees, and adjust the antenna height between 1-4m. A quasi-peak detector measurement was then done at the maximum emitting point.											
Parameters record	led during the test	Laboratory	Ambient Temperatur	e 10 °C								
Tarameters record	icd during the test	Relative Hu	midity	54 %								
-		Frequency r	ange	Measuremen	t Point							
Fully configured s following frequen	sample scanned over t cy range	he 30 MHz to 2	2.0 GHz	3 meter meas	surement distance							
		Limit	s – Class B									
Fragu	iency (MHz)		Lim	it (dBμV/m)								
riequ	iency (WITIZ)		Quasi-Peak		Results							
	30 to 88		40.00		Pass							
8	88 to 216		43.52		Pass							
2	16 to 960		46.02		Pass							
96	60 to 1000		53.97		Pass							
		EUT Config	uration Settings:									
Power In	nterface Mode #	EUT	Operation Mode #	EUT Con	figurations Mode #							
(See	Section 2.3)		(See 2.4)	(See	e Section 2.7)							
	1		1, 3		1, 2							
		Radiated Emissi	ons Test Equipmen	t:								
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due							
Test Receiver	Rohde & Schwarz	ESPI	101206	2010.07.08	2011.07.08							
Amplifier	НР	Amplifier	3113A05153	2010.07.08	2011.07.08							
BiconiLog Antenna	Schwarzbeck	VULB9168	9168-289	2010.05.17	2011.05.17							

Project Number: 11CA16184 File Number TC8352 Page 23 of 47

Figure 7. Photo of Radiated emission test setup for DVI Mode:



Project Number: 11CA16184 File Number TC8352 Page 24 of 47

Model Number: AMM240WTD
Client Name: ADVAN Int'l Corp.

Figure 8. Graphical representation, 30 MHz to 1000 MHz

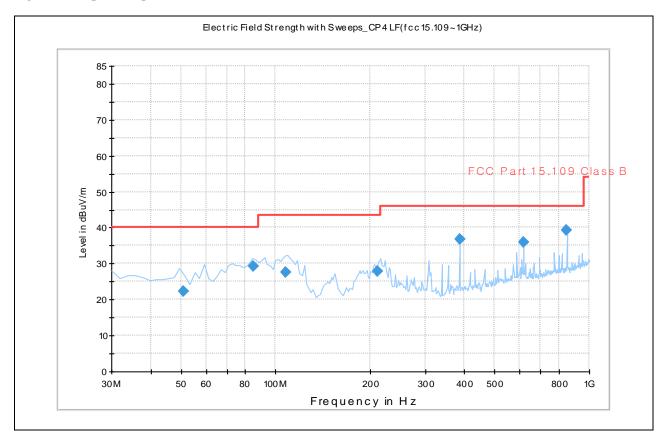


Table 3. Radiated emission Test data for DVI Mode, 30 to 1000MHz:

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Cable Loss Factor (dB)	Antenna Factor (dB/m)	Level dBuV/ m	Limit dBuV/ m	Margin (dB)
50.71	13.80	QP	V	114.0	1.00	1.21	7.39	22.40	40.00	17.60
85.18	19.50	QP	V	10.0	1.00	1.62	8.08	29.20	40.00	10.80
107.81	14.70	QP	V	0.0	1.00	1.79	11.11	27.60	43.50	15.90
211.67	14.30	QP	Н	281.0	2.00	2.58	11.12	28.00	43.50	15.50
385.73	17.60	QP	Н	141.0	1.00	3.44	15.66	36.70	46.00	9.30
617.18	13.40	QP	Н	115.0	2.00	4.28	18.22	35.90	46.00	10.10
847.04	15.40	QP	Н	99.0	3.00	5.02	18.78	39.20	46.00	6.80

* Note:

^{1.} Margin (dB)= Limit (dBuV) - Level (dBuV)

^{2.} If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

Project Number: 11CA16184 File Number TC8352 Page 25 of 47

Figure 10. Graphical representation, 1.0 GHz to 2.0 GHz

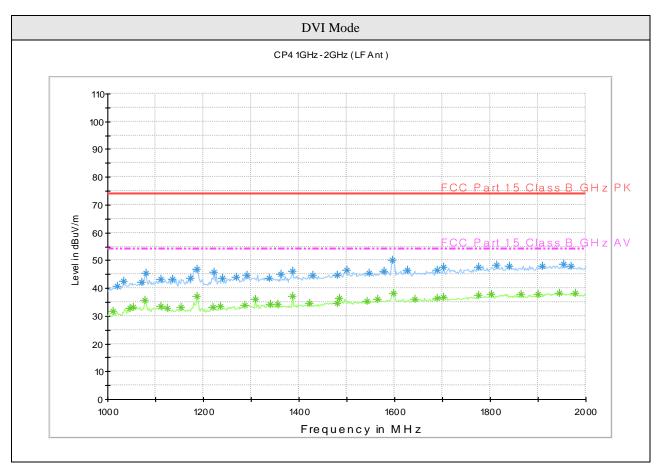


Table 5. Radiated emission Test data, DVI Mode, 1.0 GHz to 2.0 GHz

	Corre	ection Fa	ctor	Antenna	Peak					Average				
Frequency (MHz)	Antenna (dB/m)	Amp (dB)	Cable (dB)	Height (m)	Polarity	Limit (dBuV/m)	Reading (dBuV)	Result (dBuV)	Margin (dB)	Polarity	Limit (dBuV/m)	Reading (dBuV)	Result (dBuV)	Margin (dB)
1080.16	24.18	0	3.12	0.01	Н	74.00	18.20	45.50	28.50	Н	54.00	7.60	34.90	19.10
1186.37	24.32	0	3.58	0.01	Н	74.00	19.10	47.00	27.00	Н	54.00	9.10	37.00	17.00
1222.44	24.50	0	3.90	0.01	Н	74.00	17.30	45.70	28.30	Н	54.00	3.30	31.70	22.30
1386.77	25.13	0	4.77	0.01	V	74.00	16.40	46.30	27.70	V	54.00	7.10	37.00	17.00
1499.00	24.90	0	6.00	0.01	V	74.00	15.50	46.40	27.60	V	54.00	4.40	35.30	18.70
1595.19	24.86	0	6.54	0.02	V	74.00	18.60	50.00	24.00	V	54.00	6.50	37.90	16.10
1813.63	25.02	0	7.58	0.02	V	74.00	23.18	48.20	25.80	V	54.00	11.18	36.20	17.80
1953.91	25.64	0	7.46	0.02	Н	74.00	23.16	48.80	25.20	Н	54.00	11.46	37.10	16.90

Project Number: 11CA16184 File Number TC8352 Page 26 of 47

Figure 8. Photo of Radiated emission test setup for SDI In/Out Mode, 30 to 1000MHz:





Project Number: 11CA16184 File Number TC8352 Page 27 of 47

Figure8. Graphical representation, 30 MHz to 1000 MHz

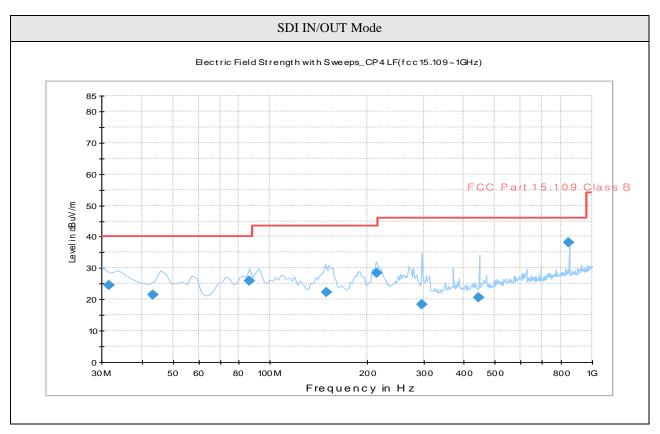


Table 4. Radiated emission Test data for SDI In/Out Mode, 30 to 1000MHz:

Test Frequency (MHz)	Meter Reading (dBuV)	Detector (Pk/QP)	Polarity (V/H)	Azimuth (Degrees)	Antenna Height (m)	Cable Loss Factor (dB)	Antenna Factor (dB/m)	Level dBuV/ m	Limit dBuV/ m	Margin (dB)
31.55	5.90	QP	V	133.00	1.00	1.02	17.68	24.60	40.00	15.40
43.44	9.70	QP	V	0.00	1.00	1.10	10.70	21.50	40.00	18.50
86.19	16.10	QP	V	299.00	1.00	1.66	8.24	26.00	40.00	14.00
150.15	9.80	QP	V	0.00	1.00	2.02	10.38	22.20	43.50	21.30
214.33	14.70	QP	Н	280.00	2.00	2.54	11.26	28.50	43.50	15.00
296.54	1.70	QP	V	290.00	2.00	2.89	13.81	18.40	46.00	27.60
444.92	0.50	QP	Н	40.00	1.00	3.60	16.40	20.50	46.00	25.50
847.02	14.50	QP	Н	123.00	1.00	5.02	18.78	38.30	46.00	7.70

^{*} Note:

^{1.} Margin (dB)= Limit (dBuV) - Level (dBuV)

^{2.} If no frequencies are specified in the tables, no measurement for quasi-peak or average was necessary.

Project Number: 11CA16184 File Number TC8352 Page 28 of 47

Figure 9. Graphical representation, 1.0 GHz to 2.0 GHz

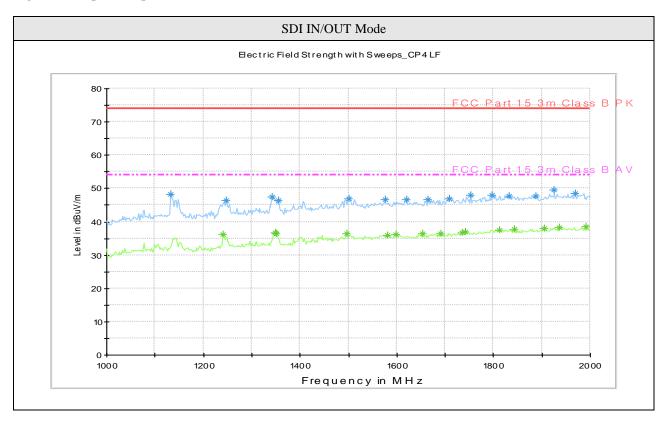


Table 6. Radiated emission Test data, DVI Mode, 1.0 GHz to 2.0 GHz

Frequency (MHz)	Correction Factor				Peak					Average				
	Antenna (dB/m)	Amp (dB)	Cable (dB)	Antenna Height (m)	Polarity	Limit (dBuV/m)	Reading (dBuV)	Result (dBuV)	Margin (dB)	Polarity	Limit (dBuV/m)	Reading (dBuV)	Result (dBuV)	Margin (dB)
1132.26	24.22	0	3.48	0.02	V	74.00	20.60	48.30	25.70	V	54.00	4.80	32.50	21.50
1342.69	25.08	0	4.52	0.02	V	74.00	17.80	47.40	26.60	V	54.00	4.70	34.30	19.70
1501.00	24.90	0	6.00	0.01	V	74.00	16.10	47.00	27.00	V	54.00	4.70	35.60	18.40
1709.42	24.72	0	6.98	0.03	Н	74.00	15.30	47.00	27.00	Н	54.00	4.00	35.70	18.30
1797.60	24.96	0	7.44	0.01	Н	74.00	15.50	47.90	26.10	Н	54.00	4.00	36.40	17.60
1887.78	25.30	0	7.60	0.04	V	74.00	14.90	47.80	26.20	V	54.00	3.70	36.60	17.40
1925.85	25.49	0	7.51	0.02	Н	74.00	24.21	49.70	24.30	Н	54.00	12.61	38.10	15.90
1969.94	25.73	0	7.37	0.03	Н	74.00	22.87	48.60	25.40	Н	54.00	11.07	36.80	17.20

Project Number: 11CA16184 File Number TC8352 Page 29 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

Appendix A: Test Facility



MIC: Designated as a testing laboratory by Radio Research Laboratory in accordance with the Regulation on Designation of Testing Laboratory for Information and Communication Equipment.

Registration No.: KR0017



KOLAS: Accredited by Korea Laboratory Accreditation Scheme (KOLAS) as Testing Laboratory in accordance with the provisions of Article 23 of the National Standards Act. These criteria encompass the requirements of ISO/IEC 17025:2000. For a scope listing search at http://kolas.kats.go.kr/02 english/m02 01 s01.asp?OlapCode=KOLU19



FCC: Details of the measurement facilities used for these tests have been filed with the Federal Communications Commission's Laboratory in Columbia, Maryland and accepted in a letter dated July 17, 2005 (Reg. No. 553281). As a Conformity Assessment Body (CAB), our organization is designated to perform compliance testing on equipment subject to Declaration Of Conformity (DOC) and Certification under Part 15 and 18 of the Commission's Rules in a letter dated July 14, 2005.



VCCI: Accepted as an Associate Member to the VCCI. The measurement facilities detailed in this test report have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. Registration Nos.: (Radiated Emissions) R-2414, (Conducted Emissions) C-2641.

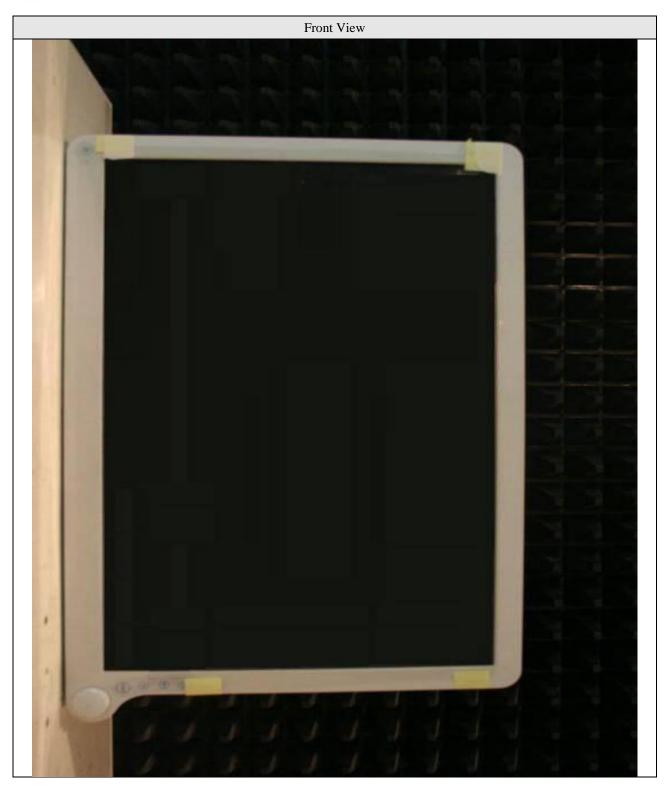
Appendix B: Measurement Uncertainties

Test	Uncertainty				
Radiated Emissions	U = k * Uc(xi) = 4.20 dB				
Conducted Emissions	U = k * Uc(xi) = 3.14 dB				

Project Number: 11CA16184 File Number TC8352 Page 30 of 47

Model Number: AMM240WTD Client Name: ADVAN Int'l Corp.

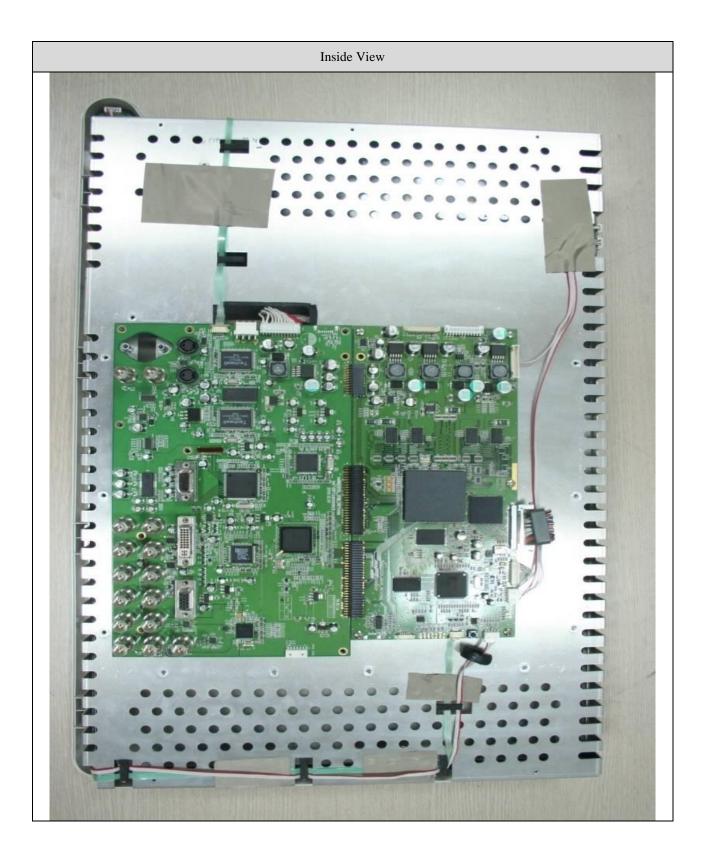
Appendix C: EUT Photos



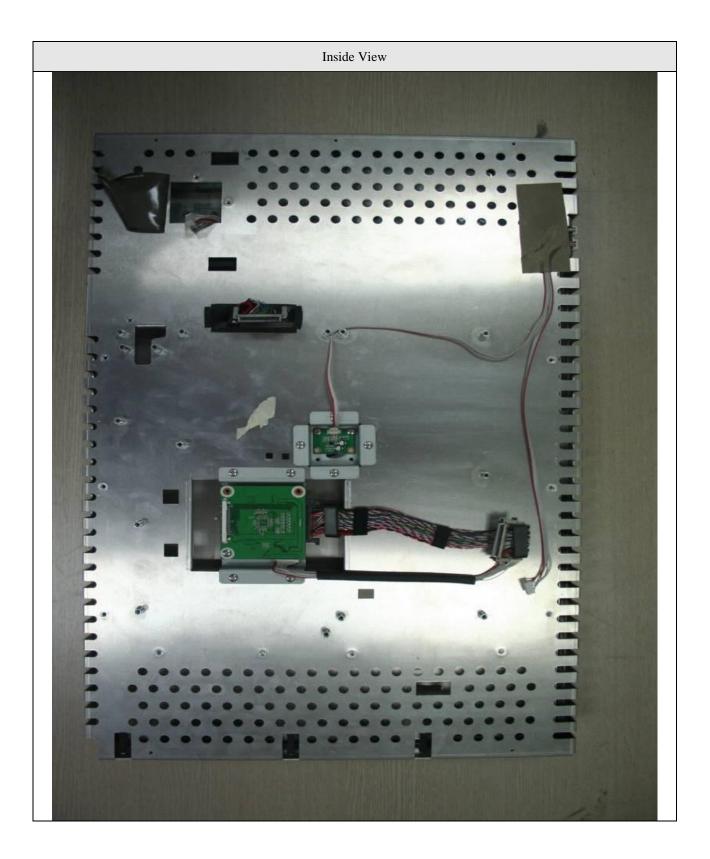
Project Number: 11CA16184 File Number TC8352 Page 31 of 47



Project Number: 11CA16184 File Number TC8352 Page 32 of 47



Project Number: 11CA16184 File Number TC8352 Page 33 of 47



Project Number: Model Number:

Client Name:

11CA16184 AMM240WTD ADVAN Int'l Corp. File Number

TC8352

Page

34 of 47



Project Number: 11CA16184 File Number TC8352 Page 35 of 47



Project Number: 11CA16184 File Number TC8352 Page 36 of 47



Project Number: 11CA16184 File Number TC8352 Page 37 of 47



Project Number: 11CA16184 File Number TC8352 Page 38 of 47



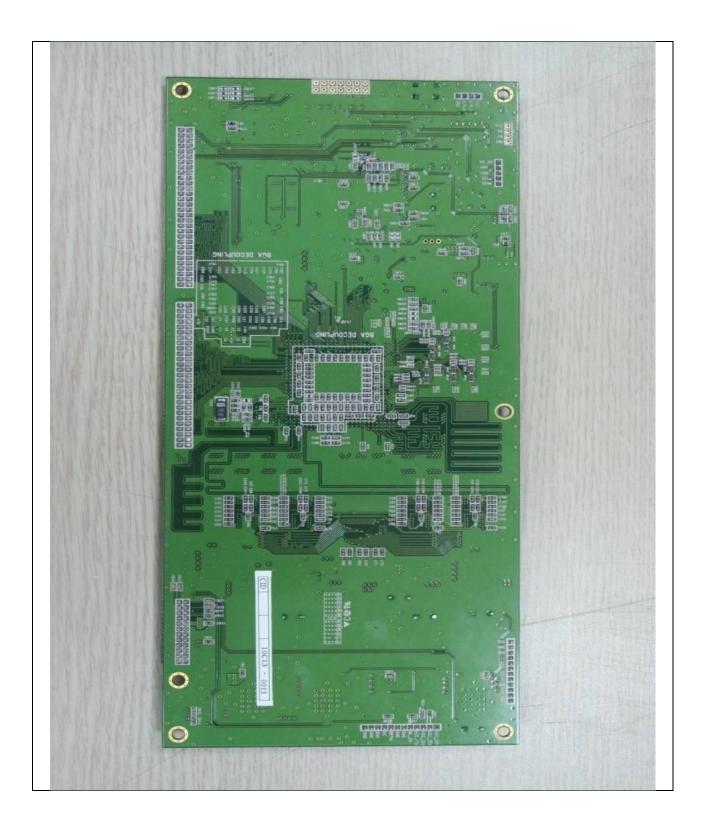
Project Number: 11CA16184 File Number TC8352 Page 39 of 47



Project Number: 11CA16184 File Number TC8352 Page 40 of 47



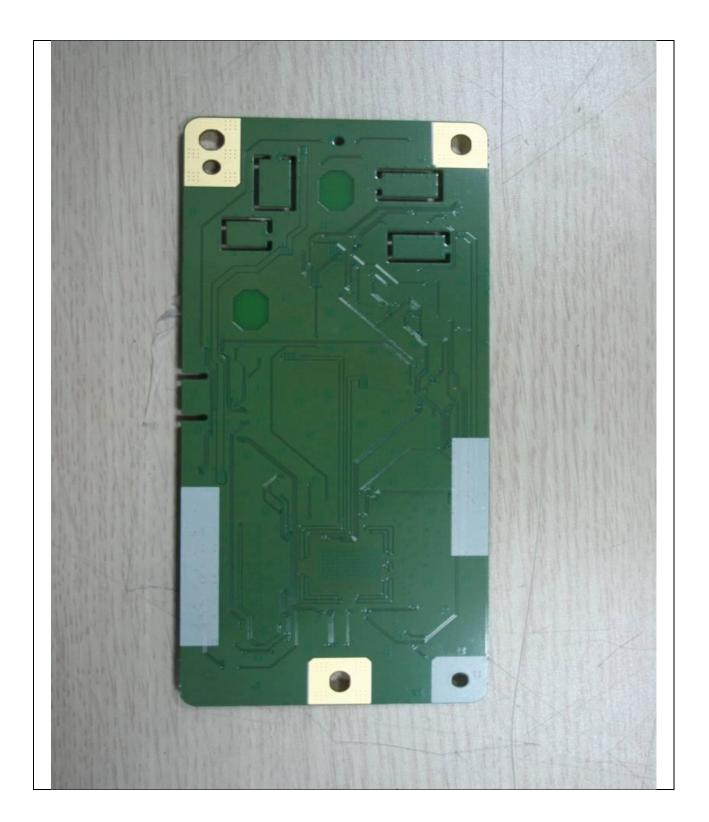
Project Number: 11CA16184 File Number TC8352 Page 41 of 47



Project Number: 11CA16184 File Number TC8352 Page 42 of 47



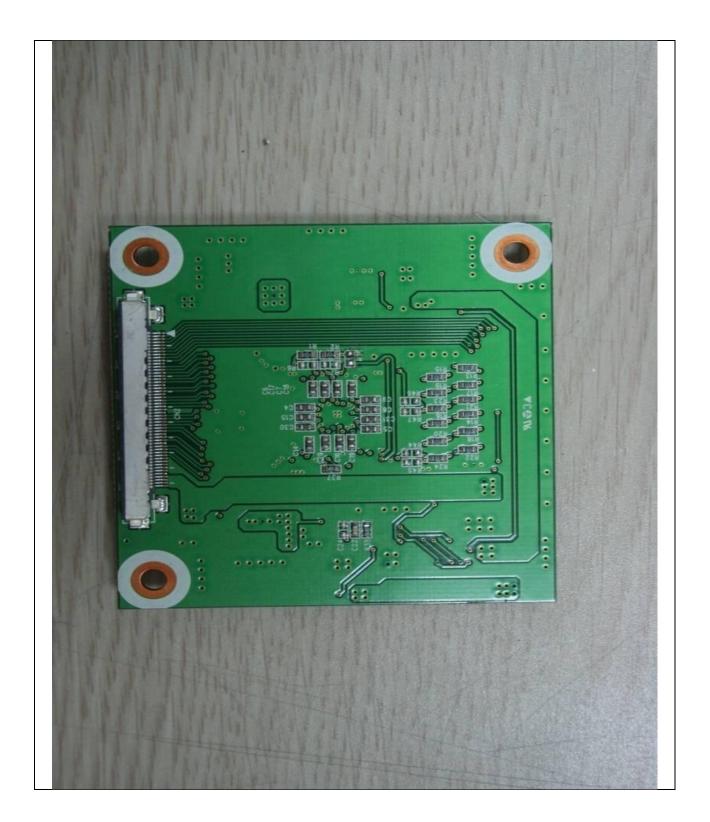
Project Number: 11CA16184 File Number TC8352 Page 43 of 47



Project Number: 11CA16184 File Number TC8352 Page 44 of 47



Project Number: 11CA16184 File Number TC8352 Page 45 of 47



Project Number: 11CA16184 File Number TC8352 Page 46 of 47



Project Number: 11CA16184 File Number TC8352 Page 47 of 47

