Underwriters Laboratories Inc.

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Order : 10094335
Report: 13-10094335-FCC
Date: Dec. 5, 2013
Model: AMM261WTD

Electromagnetic Compatibility Test Report

For

LCD Color Medical Monitor

ADVAN INT'L CORP
47817 Fremont Blvd., Fremont, CA 94538 U.S.A.

Summary of Test Results:

The following tests were performed on a sample submitted for evaluation of compliance 47 CFR Part 15.107 (a) / 47 CFR Part 15.109 (a) Class B.				
Test #	Test Name Test Requirement/Specification	Compliant	Not Compliant	See Remark
1	AC Power line Conducted Emission Test	X	-	-
2	Radiated Emission Test	X	-	-
***Note:** No modifications were made to the EUT in order to achieve and maintain compliance to the standards described in this report.				

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.

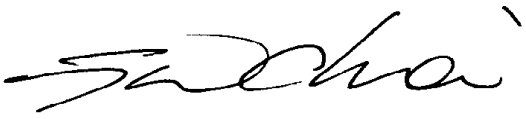
The equipment under test has

☐ Met the technical requirements

☒ Met the technical requirements under the limited condition

☐ Not met the technical requirements

Witnessed by
Changmin, Kim, WiSE Engineer
UL Verification Services – 3014ASEO
UL Korea Ltd.
Dec. 5, 2013



Reviewed by
Jeawoon, Choi, WiSE Operations Manager
UL Verification Services- 3014ASEO
UL Korea Ltd.
Dec. 5, 2013

Test Report Details

Test report No:	13-10094335-FCC
Witnessed By:	UL Korea Ltd. 33rd FL. GFC Bldg. 737 Yeoksam-dong, Kangnam-ku, Seoul, 135-984, Korea
Test Site:	Digital EMC Co., Ltd 683-3, Yuban-Dong, Cheoin-Gu, Yongin-Si, Kyunggi-Do, 449-080, 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 U.S.A.
Manufacturer:	ADVAN INT'L CORP 47817 Fremont Blvd., Fremont, CA 94538 U.S.A.
Factory:	D&T Inc. (JANG-DONG, (DAEDEOK VALLEY)) 26-121 GAJEONGBUK-RO, YUSEONG-GU, DAEJEON 305-343, KOREA
Applicant Contact:	Jun Ho Jang
Phone:	82-70-7842-8018
E-mail:	andyjang@advancorp.com
Product Type:	LCD COLOR MEDICAL MONITOR
Model Number:	AMM261WTD
Multi-listing model number:	N/A The manufacturer has declared to all the multiple model names into the basic model without any further evaluation by UL.
FCC ID:	QVXAMM261WTD
Trademark:	N/A
Product standards:	FCC Part 15 Subpart B
Test Procedure:	ANSI C63.4 : 2003
Sample Serial Number:	N/A
Sample Receive Date:	Nov. 6, 2013
Testing Start Date:	Nov. 7, 2013
Date Testing Complete:	Nov. 30, 2013
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.

REPORT DIRECTORY

1. GENERAL PRODUCT DESCRIPTION

1.1 Report Revision History:

Revision Date	Description	Remarks
-	Original	-

1.2 Equipment Description:

Description:
Auto - Scanning with digital control LCD color medical monitor

1.3 Details of Equipment Under Test (EUT):

Equipment Configuration:				
No.	Product Type	Manufacturer	Model	Comments
1	LCD Color Medical Monitor	ADVAN Int'l Corp.	AMM261WTD	-
2	AC/DC Adapter	BridgePower Corp.	BPM150S24F10	1 EA
3	DC Extension Cable	-	CB-47D2001P50MF	5 ft
4	DC Extension Cable	-	CB-47D2004P57MF	15 ft
5	DC Extension Cable	-	CB-47D2022P86MF	75 ft
6	DVI-D cable	-	-	1 EA
7	HD15 VGA cable	-	-	1 EA
8	Hospital-grade AC power cord	-	-	1 EA
9	BNC Cable	-	-	8 EA
10	S-Video (Y/C) Cable	-	-	1 EA

1.4 Technical Data:

Model	**AMM261WTD**		
Description	a-Si TFT Active Matrix, LED Backlight		
Active Screen Size	26 inches diagonal		
Resolution	1920 (H) x 1080 (V) @60Hz		
Pixel Pitch	0.30 mm		
Display Color	1.07B colors		
Color Tone	Up to 256 color tone		
Response Time	<25ms Typ.		
Face Finishing	Protective Filter with Anti-Reflected Hard Coated		
Viewing Angle	R/L 178°, U/D 178° (CR > 10)		
Brightness**	450 cd/m2 (Typ.)		
Contrast Ratio	1400:1 (Typ.)		
Input		**Output**	
Composite Video	BNC x 1	Composite Video	BNC x 1
	1.0 Vp-p		1.0 Vp-p
Y/C Video	4 pin Mini Din x 1	Y/C Video	4 pin Mini Din x 1
	Luminance (Y) : 1.0± 0.1Vp-p		Luminance (Y) : 1.0± 0.1Vp-p
	Chrominance (C) : 0.3± 0.03Vp-p		Chrominance (C) : 0.3± 0.03Vp-p
Component/RGB	BNC x 5 (Y/Pb/Pr , RGBs , R/G/B/H/V)	Component/RGB	BNC x 5 (Y/Pb/Pr , RGBs , R/G/B/H/V)
	RGB: 0.7 ± 0.1 Vp-p		RGB: 0.7 ± 0.1 Vp-p
	Composite Sync : 0.3Vp-p ~ 5Vp-p		Composite Sync : 0.3Vp-p ~ 5Vp-p
	H/V SYNC : TTL Level		H/V SYNC : TTL Level
SDI1/2	3G/HD/SD SDI, BNC x1	SDI1/2	3G/HD/SD SDI, BNC x1
VGA	15pin D-Sub x 1		
	R/G/B : 0.7 ± 0.1 Vp-p		
	H/V Sync : TTL Level (V high ≥2.3V, V low ≤0.5V)		
DVI	DVI-I x 1		
Remote Input	9–pin D-Sub (RS-232C) x 1		
Scanning Frequency	Horizontal : 31.47~80.0Khz Vertical : 50~85Hz		
General			
Power Adaptor	AC 100 ~ 240V 50-60Hz, 2.0A		
	DC 24V, 6.25A		
Power Consumption	TBD W		
Dimension	643.7(W) x 394.8 (H) x 79.8 (D) mm		
Weight	Monitor : TBD		
	AC adaptor : TBD		
VESA Mounting	100mm x 100mm		
Operating/Storage Environment			
Operating Temperature	32° ~ 95°F (0° - 35°C)		
Operating Humidity	20% ~ 80%, non-condensing		
Storage Temperature	-4° ~ 140°F (-20° - 60°C)		
Storage Humidity	10 ~ 85%RH (without condensation)		
Compliance &Certification			
Safety	UL (UL60601-1), cUL (CAN/CSA-C22.2 No.6011-M90), CE (EN60601-1), AS/NZS 3200-1-0. CCC (GB4943.1), CB-ITE (IEC60950-1), IP23 Compliance		
EMC	FCC (Part 15 Class B), CE (EN60601-1-2), AS/NZS 3200-1-2, VCCI (Class B), CCC (GB9254, GB17625.1)		
Optional Module			
DC Extension Cable	5ft, 15ft, 75ft length		
Base Stand	Adjustable high, swivel and tilt base stand		

1.5 EUT Internal Operating Frequency

Frequency (MHz)	Description	Frequency (MHz)	Description
324.0 MHz	Memory Clock	27.0 MHz	System Clock
148.5 MHz	Display Clock	10.0 MHz	System Clock

1.6 Technical descriptions and documents:

No.	Document Title and Description
1	AMM261WTD User Manual
***Note:** The manufacturer provided the following document.	

1.7 Detail information of Multi-listing model:

-	Model	Description	Comment
1	-	-	-
***Note:** The manufacturer has declared to all the multiple model names into the basic model without any further evaluation by UL.			

1.8 Equipment Marking Plate of Product:

Product Label

2. TEST CONDITION

2.1 Equipment Used During Test:

Use*	Product Type	Manufacturer	Model	Certify No.	Comments
EUT	LCD Color Medical Monitor	ADVAN Int'l Corp.	AMM240WTD	-	EUT
EUT	AC/DC Adapter	BridgePower Corp.	BPM150S24F10	-	-
EUT	DC Extension Cable	-	CB-47D2001P50MF	-	5ft
EUT	DC Extension Cable	-	CB-47D2004P57MF	-	15ft
EUT	DC Extension Cable	-	CB-47D2022P86MF	-	75ft
AE	PC	DELL	VOSTRO460	DoC	DVI, VGA Source
AE	Keyboard	S&J	KB-065	DoC	-
AE	Mouse	HP	N/A	DoC	-
AE	DVD Player	Sony	DVP-NS92V S/N : 2000407	DoC	C-Video, S-Video, Component source
AE	LCD Monitor	ADVAN Int'l Corp.	AMM240WTD	FCC ID: QVXAMM240WTD	-
AE	Adapter (Monitor)	BridgePower Corp.	BPM150S24F11		-

***Note: EUT** - Equipment Under Test,

AE - Auxiliary/Associated Equipment,

SIM - Simulator (Not Subjected to Test)

2.2 Input/Output Ports:

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
1	Mains(EUT)	AC	1.8 m	Unshielded	Hospital-grade AC power cord
2	DVI	I/O	3.0 m	Shielded	24 pin DVI-D
3	VGA	I/O	2.0 m	Shielded	15 PIN D-SUB
4	CVBS	I/O	3.0 m	Shielded	BNC
5	RGB/COPONENT	I/O	3.0 m	Shielded	BNC
6	S-Video	I/O	3.0 m	Shielded	S-Video
8	Power(DVD)	AC	1.8m	Un Shielded	
9	Power(AE Monitor)	AC	1.8m	Un Shielded	
10	Power(AE PC)	AC	1.8m	Un Shielded	
11.	USB(Keyboard)	I/O	1.2m	Shielded	
12.	USB(Mouse)	I/O	1.2m	Shielded	
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.					

2.3 Power Interface:

Mode #	Voltage (V)	Current (A)	Power (W)	Frequency (DC/AC-Hz)	Comments
Rated	AC 100-240 V	2 A	-	50-60Hz	Rated of Power Supply
1	AC 120 V	-	-	60Hz	-

2.4 Test Operating Mode:

Mode #	Mode	Comments
1	DVI Mode	Worst case condition
2	VGA Mode	-
3	SDI In/Out Mode	Worst case condition
4	S-VIDEO In/Out Mode	-
5	C-Video In/Out Mode	-
6	Component In/Out 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.

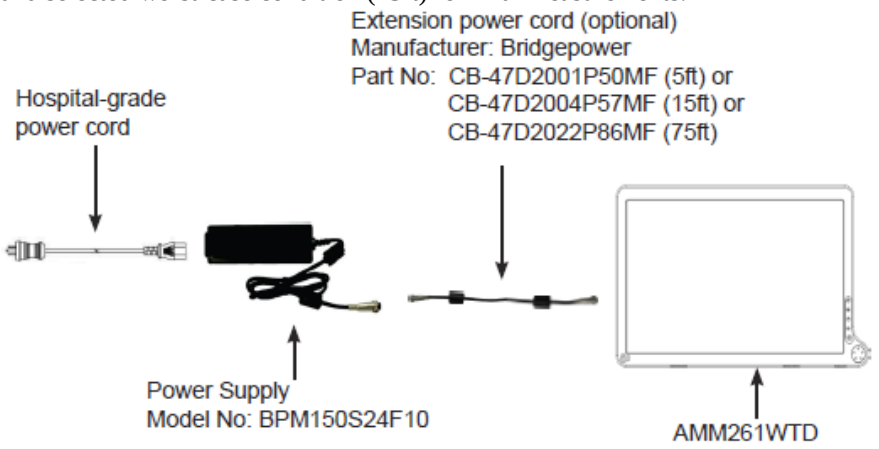
2.5 Modes of Video Resolution:

Mode #		Resolution	Comments
1	VGA Mode	800 * 600 @ 60Hz	-
2		1024 * 768 @ 60Hz	-
3		1920 * 1200 @ 60Hz	Worst case condition (Range of Brightness: 100, Range of contrast: 100 And range of backlight: 100.
4	SDI Mode	1080i	Worst case condition (Range of Brightness: 100, Range of contrast: 100 And range of backlight: 100.
*** Note:** Video resolution where it refers from above is representative worst case.			

2.6 Used D.C. Extension Cable for Test:

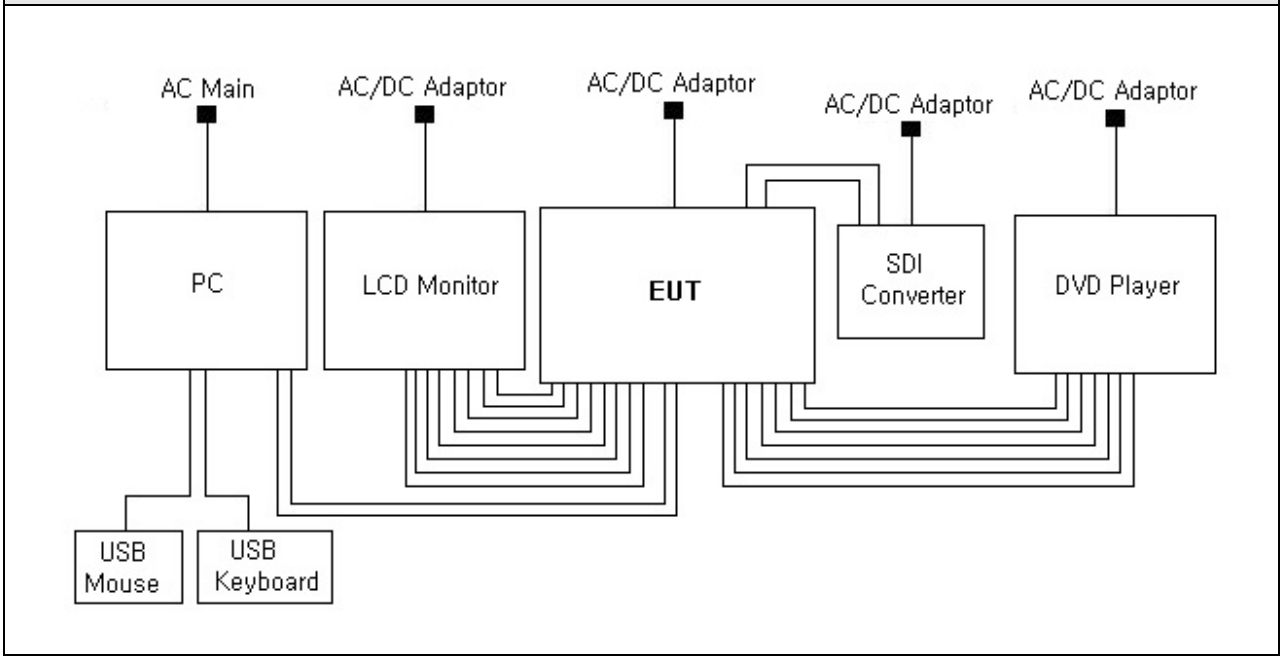
No.	Cable Length	Preliminary Test	Comment
1	5ft	DVI, VGA, SDI, S-Video, C-Video, Component Mode.	-
2	15ft		-
3	75ft		Selected for Worst case condition

*** 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.



2.7 Test Configuration:

Test configuration



2.8 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(a) 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 (a) Class B at the Digital EMC Laboratory and the test results has been shown to be complied with the EMC requirements specified in the standard above.				

3. TEST CONDITION AND RESULTS

3.1 MAINS TERMINAL DISTURBANCE VOLTAGE TEST

TEST: Limits of mains terminal disturbance voltage					
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.				
Basic Standard		FCC Part 15			
Parameters recorded during the test		Laboratory Ambient Temperature	22 ℃		
		Relative Humidity	47 %		
-		Frequency range on each side of line	Measurement Point		
Fully configured sample scanned over the following frequency range		150 kHz to 30 MHz	AC Input port of EUT		
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**	
EUT Configuration Settings:					
Power Interface Mode # (See Section 2.3)		EUT Operation Mode # (See 2.4)		EUT Configurations Mode # (See Section 2.7)	
1		1, 3		1	
Conducted Emissions Test Equipment used:					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	R & S	ESCI	100364	2013.02.27	2014.02.27
LISN	R & S	ESH2-Z5	828739/006	2013.09.12	2014.09.12
LISN	TTI	LISN1600	197204	2013.06.28	2014.06.02
50 ohm Terminator	TME	CT-01	N/A	2013.01.08	2014.01.08

Figure 1. Graphical representation of conducted emissions : DVI Mode

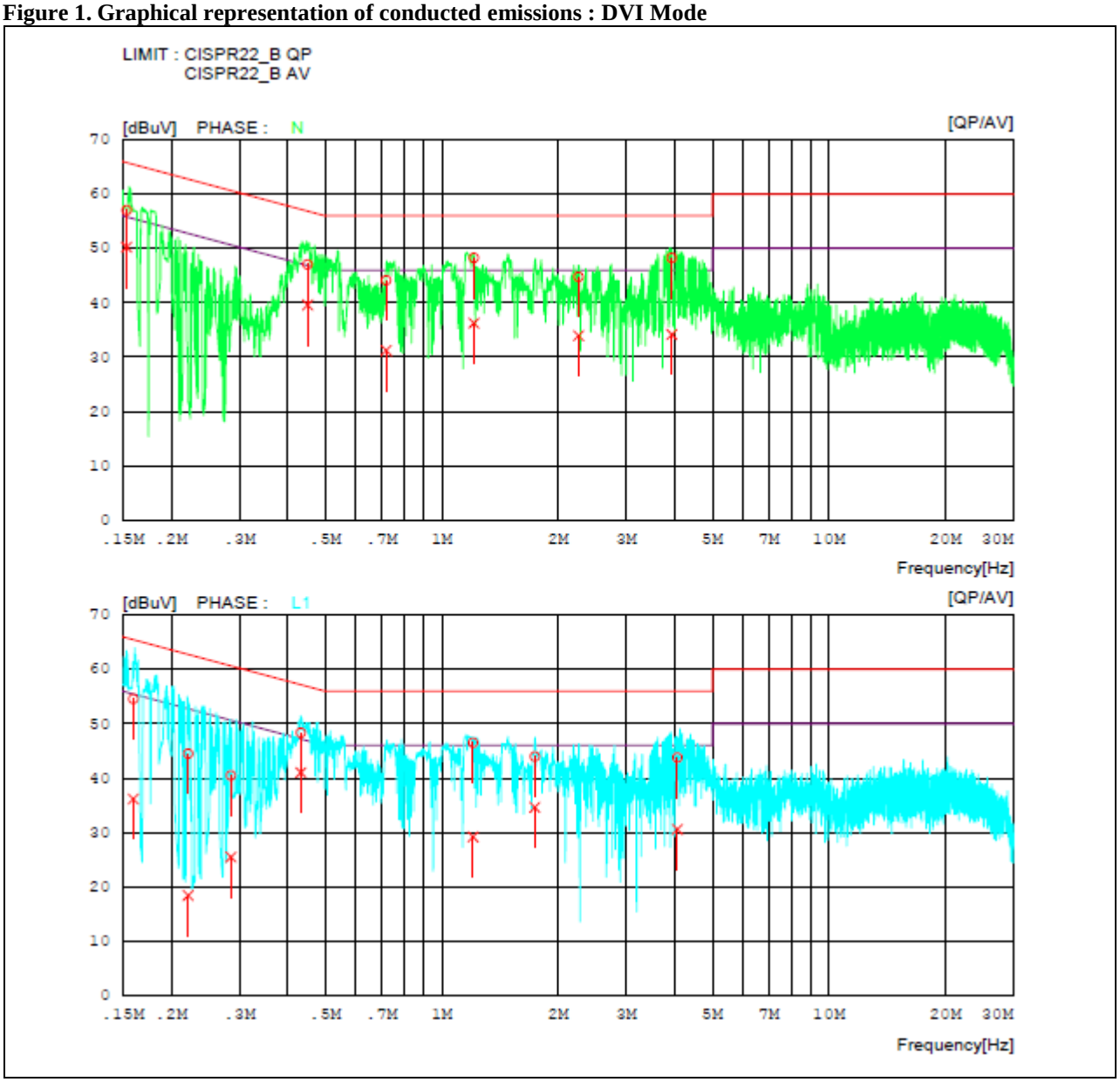


Table 1. Conducted emissions Test data : DVI Mode

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.15350	56.9	50.1	0.1	57.0	50.2	65.8	55.8	8.8	5.6	N
2	0.45027	47.0	39.5	0.1	47.1	39.6	56.9	46.9	9.8	7.3	N
3	0.71872	43.9	31.1	0.2	44.1	31.3	56.0	46.0	11.9	14.8	N
4	1.21120	48.1	36.1	0.2	48.3	36.3	56.0	46.0	7.7	9.7	N
5	2.25640	44.5	33.6	0.3	44.8	33.9	56.0	46.0	11.2	12.1	N
6	3.93000	47.9	33.8	0.4	48.3	34.2	56.0	46.0	7.7	11.8	N
7	0.15972	54.5	36.1	0.1	54.6	36.2	65.5	55.5	10.9	19.3	L1
8	0.22134	44.4	18.3	0.1	44.5	18.4	62.8	52.8	18.3	34.4	L1
9	0.28540	40.4	25.4	0.1	40.5	25.5	60.7	50.7	20.2	25.2	L1
10	0.43264	48.3	40.9	0.1	48.4	41.0	57.2	47.2	8.8	6.2	L1
11	1.20480	46.3	29.0	0.2	46.5	29.2	56.0	46.0	9.5	16.8	L1
12	1.74000	43.7	34.3	0.3	44.0	34.6	56.0	46.0	12.0	11.4	L1
13	4.06360	43.4	30.2	0.4	43.8	30.6	56.0	46.0	12.2	15.4	L1

*** 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.

Figure 2. Graphical representation of conducted emissions : SDI Mode

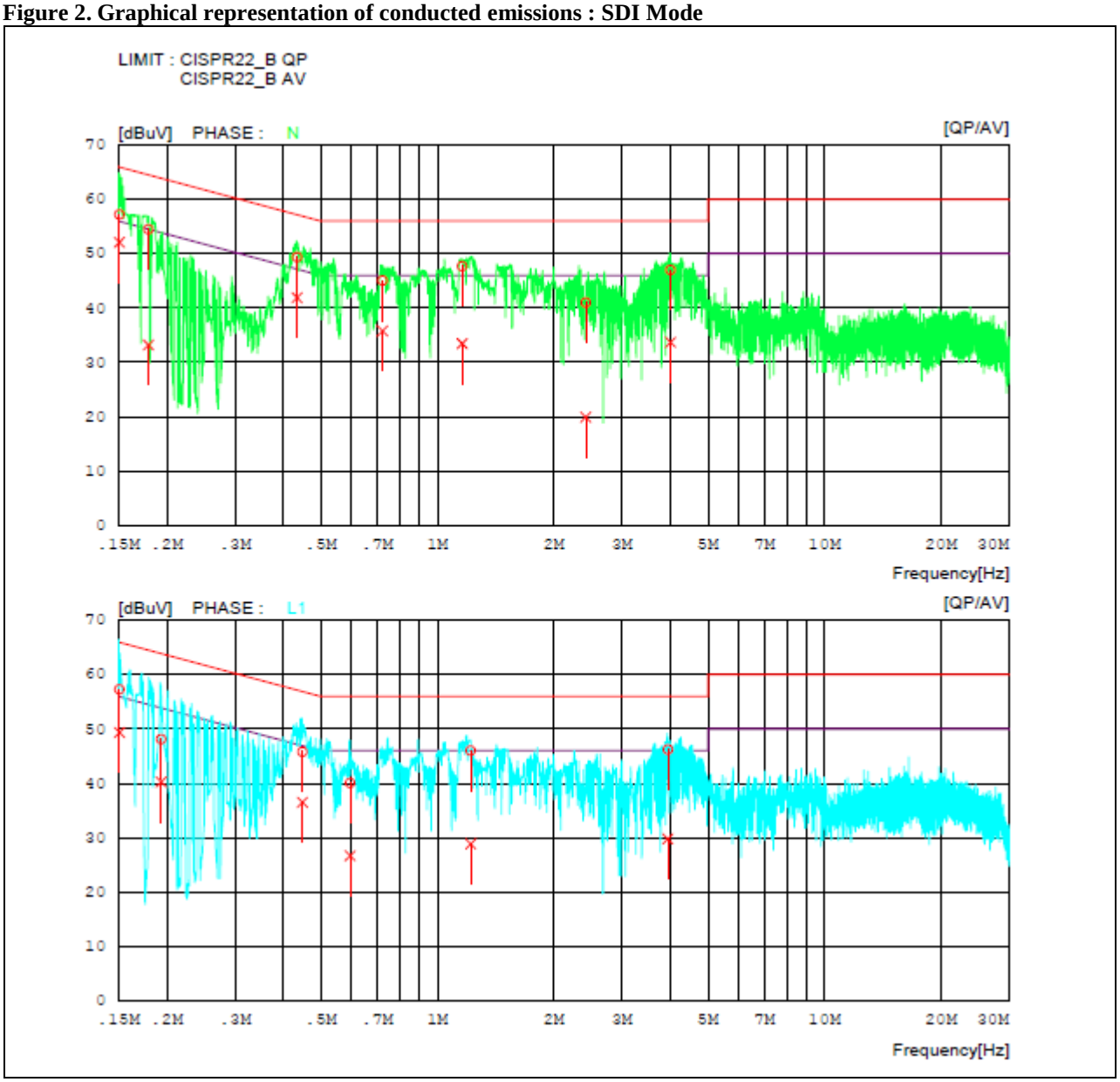


Table 2. Conducted emissions Test data : SDI Mode

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.15086	57.1	52.0	0.1	57.2	52.1	66.0	56.0	8.8	3.9	N
2	0.17932	54.4	33.1	0.1	54.5	33.2	64.5	54.5	10.0	21.3	N
3	0.43421	49.3	41.8	0.1	49.4	41.9	57.2	47.2	7.8	5.3	N
4	0.72162	44.9	35.6	0.2	45.1	35.8	56.0	46.0	10.9	10.2	N
5	1.15880	47.5	33.3	0.2	47.7	33.5	56.0	46.0	8.3	12.5	N
6	2.41800	40.7	19.6	0.3	41.0	19.9	56.0	46.0	15.0	26.1	N
7	4.00160	46.6	33.3	0.4	47.0	33.7	56.0	46.0	9.0	12.3	N
8	0.15086	57.2	49.3	0.1	57.3	49.4	66.0	56.0	8.7	6.6	L1
9	0.19339	48.0	40.1	0.1	48.1	40.2	63.9	53.9	15.8	13.7	L1
10	0.44844	45.7	36.4	0.1	45.8	36.5	56.9	46.9	11.1	10.4	L1
11	0.59509	40.0	26.6	0.1	40.1	26.7	56.0	46.0	15.9	19.3	L1
12	1.21900	45.8	28.7	0.2	46.0	28.9	56.0	46.0	10.0	17.1	L1
13	3.94040	45.8	29.4	0.4	46.2	29.8	56.0	46.0	9.8	16.2	L1

*** 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.

3.2 RADIATED DISTURBANCE

TEST: Limits for radiated disturbance			
Method	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 3m 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. The measurements (above 1 GHz) were made 3 m distance test site. The EUT was placed on a non-conductive turntable approximately 0.8 m above the ground plane. The turntable with EUT was rotated 360°, and the antenna was varied in height between 1.0 m and 4.0 m in order to determine the maximum emission levels. This procedure was performed for both horizontal and vertical polarization of the receiving antenna. The measurements were conducted with Average and Peak value.		
Basic Standards	FCC Part 15		
Parameters recorded during the test	Laboratory Ambient Temperature		22 ℃
	Relative Humidity		47 %
-	Frequency range		Measurement Point
Fully configured sample scanned over the following frequency range	30 MHz – 1.0 GHz		3 meter measurement distance
	1.0 GHz ~ 6.0 GHz		3 meter measurement distance
Limits – Class B			
Frequency (MHz)	Limit (dBμV/m)		
	Quasi-Peak		**Results**
30 to 88	40.00		**Pass**
88 to 216	43.52		**Pass**
216 to 960	46.02		**Pass**
960 to 1000	53.97		**Pass**
-	Average	Peak	-
Above 1000	54	74	Pass

EUT Configuration Settings:		
Power Interface Mode # (See Section 2.3)	EUT Operation Mode # (See 2.4)	EUT Configurations Mode # (See Section 2.7)
1	1, 3	1

Radiated Emissions Test Equipment:					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
EMI Test Receiver	Rohde & Schwarz	ESU	100014	2013.01.08	2014.01.08
Bilog Antenna	SCHAFFNER	CBL6112B	2737	2012.03.22	2014.03.22
Horn Antenna	SCHWARZBECK	BBHA9120A	322	2012.05.15	2014.05.15
Amplifier	H/P	8447E	2945A02865	2013.01.08	2014.01.08
PreAmplifier	Agilent	8449B	3008A01590	2013.02.27	2014.02.27

Figure 3. Graphical representation of Radiated emission : DVI Mode (30 MHz ~ 1 GHz)

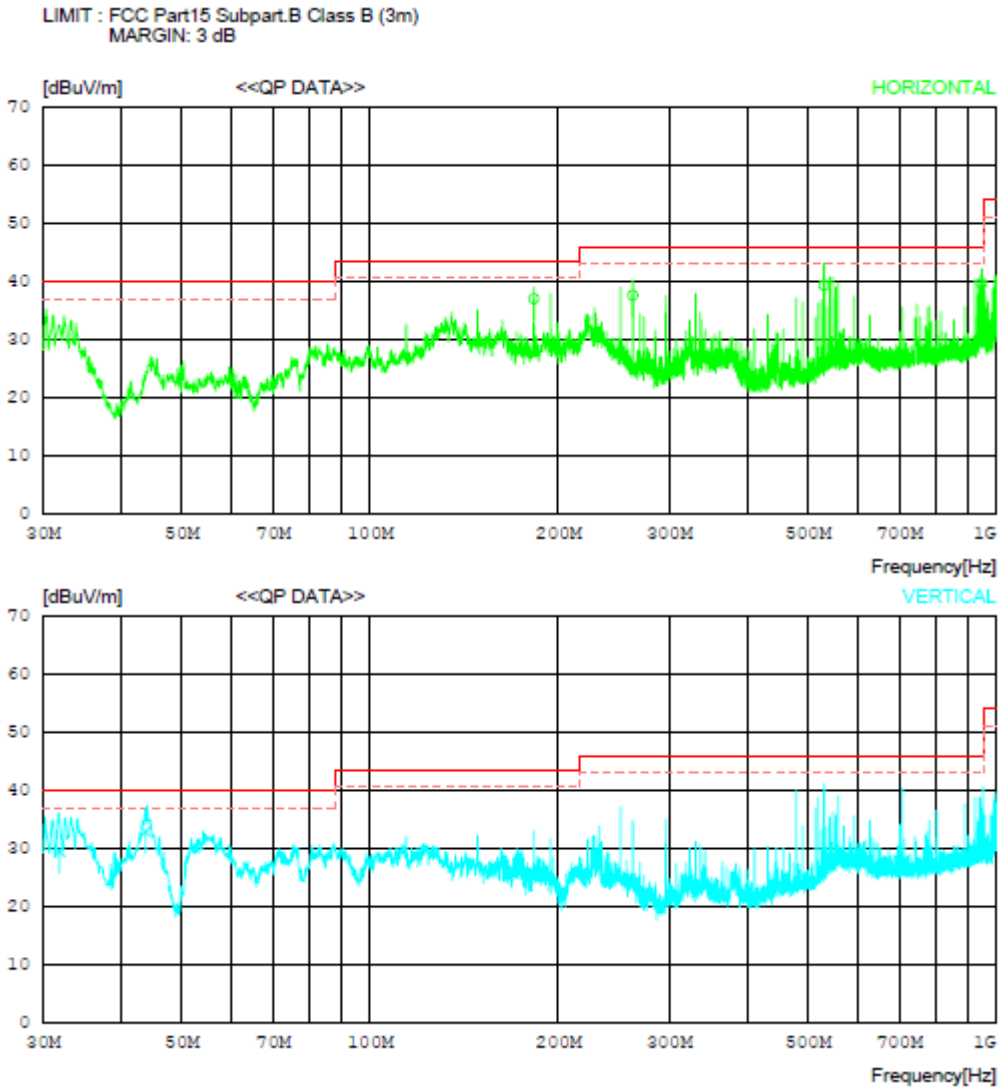
Horizontal/ vertical


Table 3. Radiated emission Test data : DVI Mode (30 MHz ~ 1 GHz)

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	182.763	48.0	9.7	3.3	24.0	37.0	43.5	6.5	200	360
2	262.726	44.3	13.0	4.0	23.7	37.6	46.0	8.4	100	212
3	531.174	38.3	17.8	6.2	23.0	39.3	46.0	6.7	100	62
4	948.624	32.6	21.5	8.3	22.7	39.7	46.0	6.3	100	95
----- Vertical ------										
5	31.886	34.5	16.9	1.9	23.8	29.5	40.0	10.5	200	13
6	43.761	41.4	13.6	2.1	24.2	32.9	40.0	7.1	100	360

*** 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.

Figure 4. Graphical representation of Radiated emission : DVI Mode ((1 ~ 6) GHz _ Peak)

Horizontal/ vertical

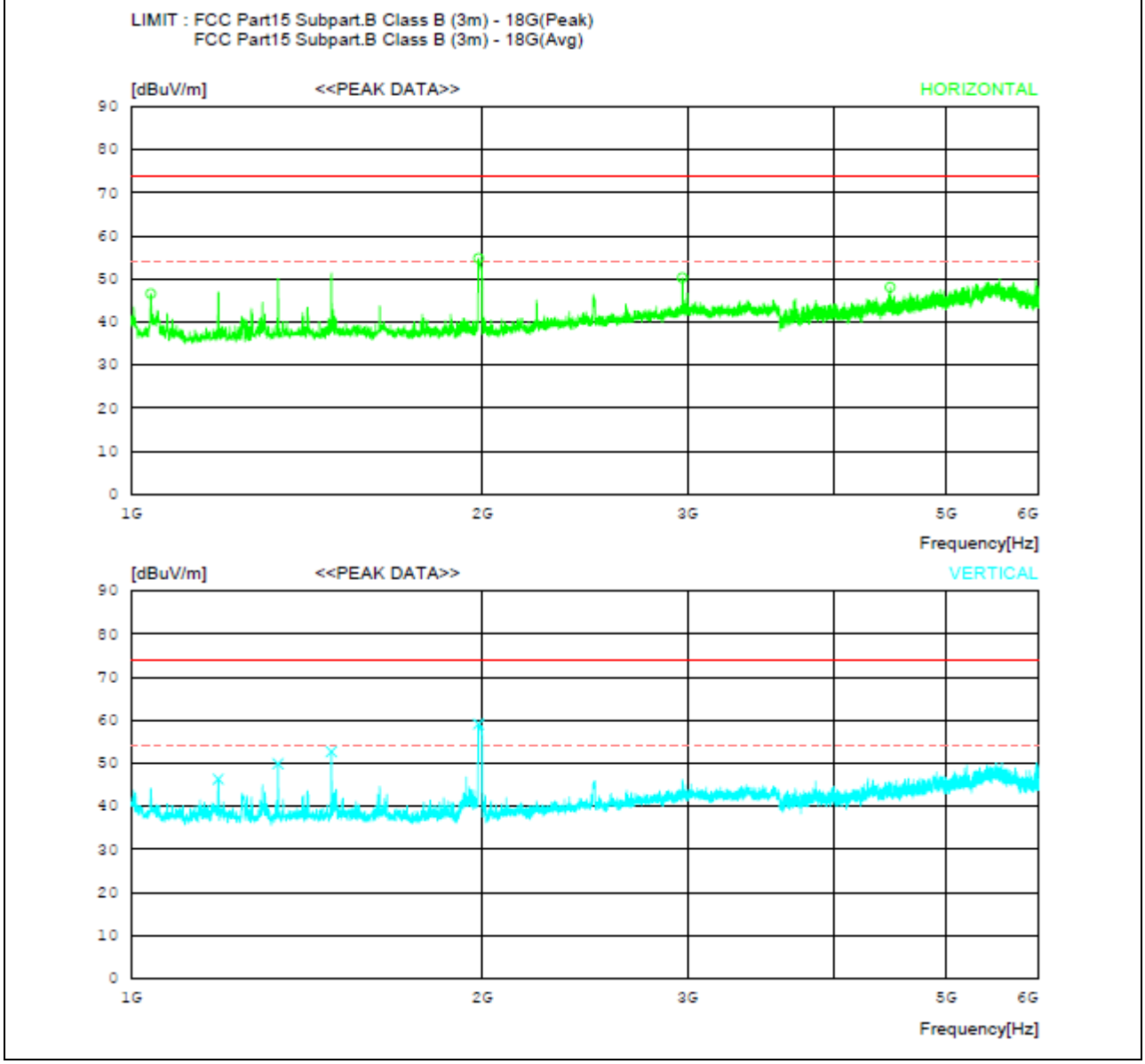


Table 4. **Radiated emission Test data :** DVI Mode ((1 ~ 6) GHz _ Peak)

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1039.375	60.4	23.9	3.4	41.1	46.6	74.0	27.4	100	180
2	1985.625	65.0	24.6	4.7	39.5	54.8	74.0	19.2	100	302
3	2970.000	55.1	28.9	5.6	39.3	50.3	74.0	23.7	100	1
4	4478.125	48.7	30.9	7.1	38.6	48.1	74.0	25.9	100	1
----- Vertical ------										
5	1187.500	59.3	24.2	3.6	40.8	46.3	74.0	27.7	100	194
6	1336.250	62.1	24.4	3.8	40.4	49.9	74.0	24.1	100	359
7	1484.375	64.2	24.6	4.0	40.1	52.7	74.0	21.3	100	189
8	1985.625	69.3	24.6	4.7	39.5	59.1	74.0	14.9	100	359

*** 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.

Figure 5. **Graphical representation of Radiated emission** : DVI Mode ((1 ~ 6) GHz _ Average)

Horizontal/ vertical

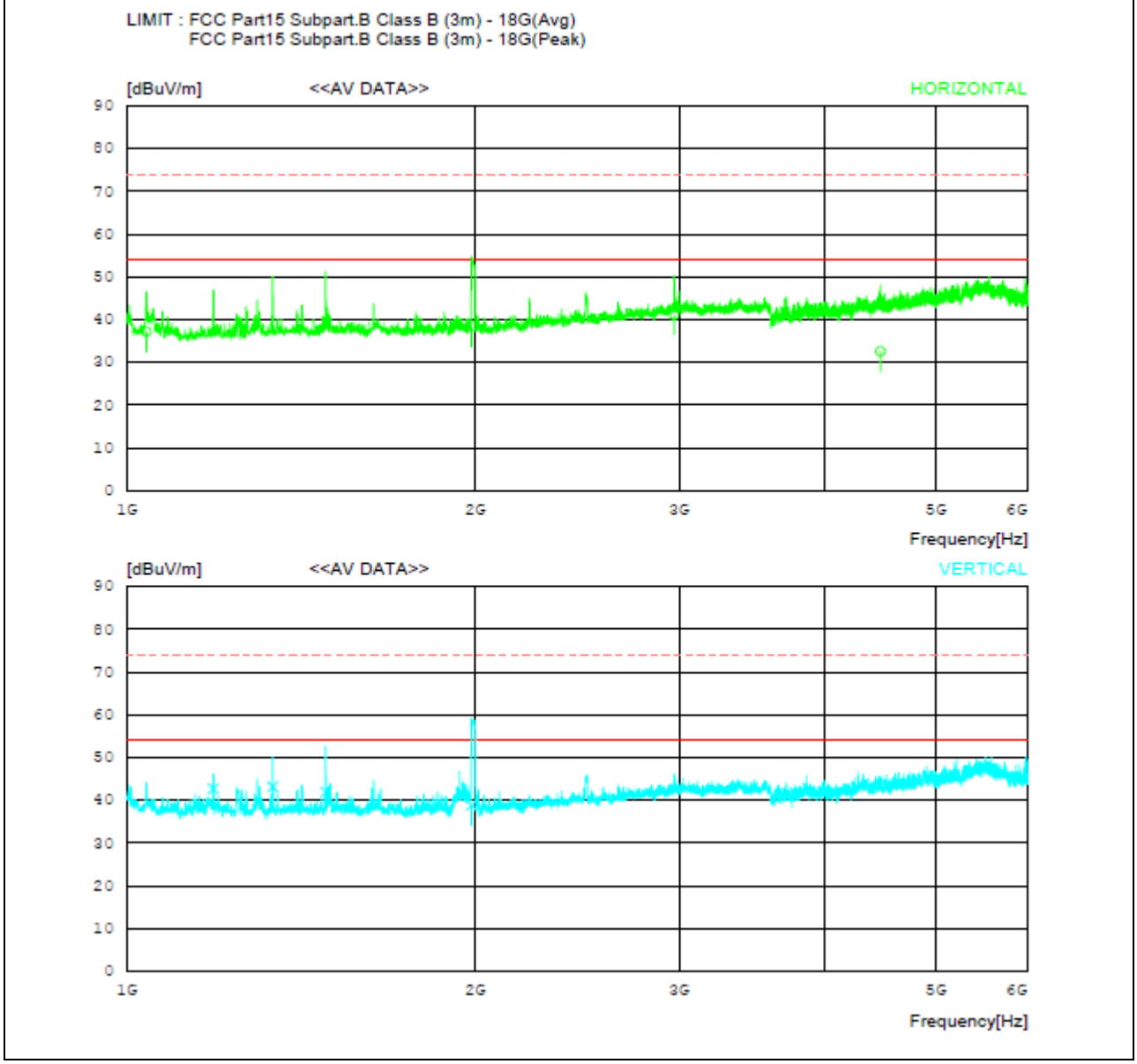


Table 5. Radiated emission Test data : DVI Mode ((1 ~ 6) GHz _ Average)

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1039.515	51.0	23.9	3.4	41.1	37.2	54.0	16.8	100	174
2	1985.346	48.6	24.6	4.7	39.5	38.4	54.0	15.6	100	176
3	2970.170	46.0	28.9	5.6	39.3	41.2	54.0	12.8	100	170
4	4477.522	33.2	30.9	7.1	38.6	32.6	54.0	21.4	100	360
----- Vertical ------										
5	1187.799	55.7	24.2	3.6	40.8	42.7	54.0	11.3	100	198
6	1336.486	55.4	24.4	3.8	40.4	43.2	54.0	10.8	100	156
7	1484.986	53.4	24.6	4.0	40.1	41.9	54.0	12.1	100	175
8	1985.537	49.0	24.6	4.7	39.5	38.8	54.0	15.2	100	172

*** 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.

Figure 6. Graphical representation of Radiated emission : SDI Mode (30 MHz ~ 1 GHz)

Horizontal/ vertical

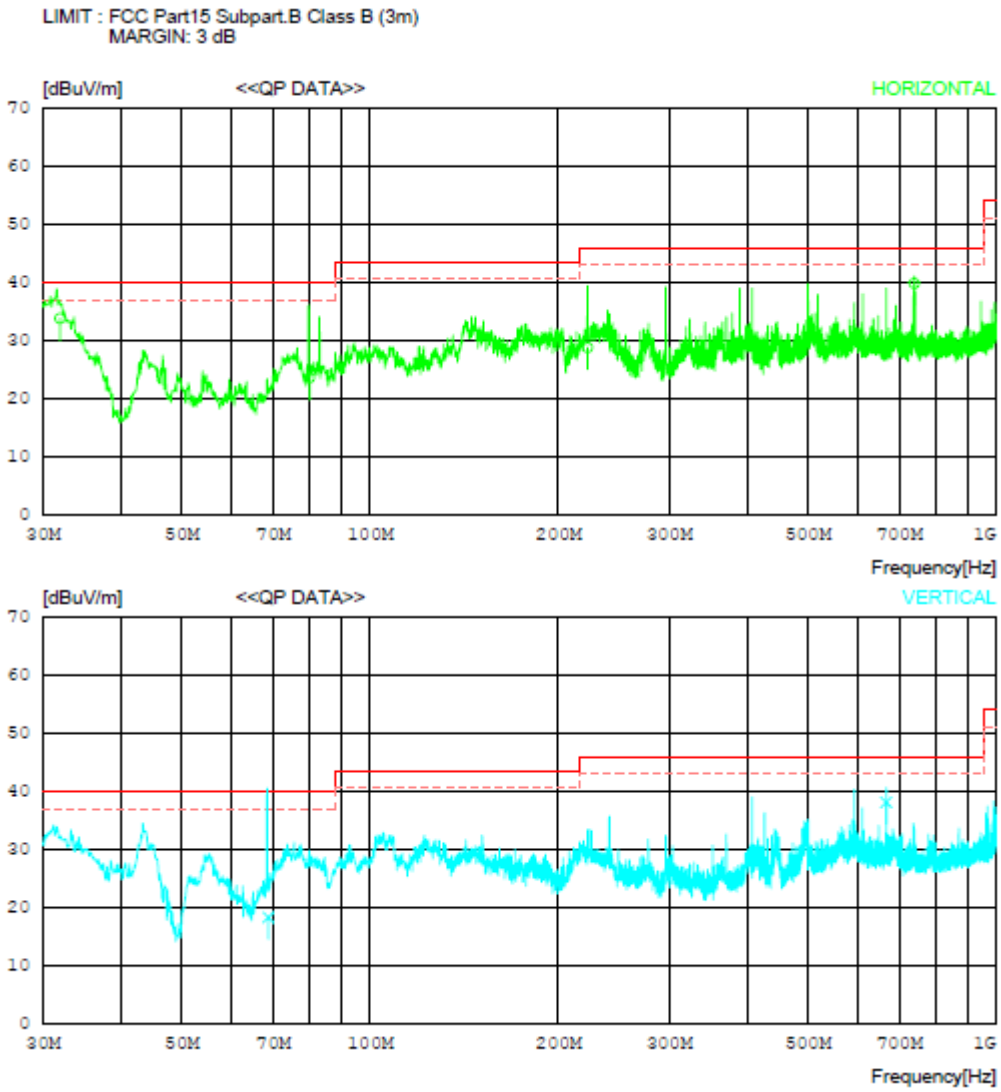


Table 6. Radiated emission Test data : SDI Mode (30 MHz ~ 1 GHz)

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	31.951	38.9	16.9	1.9	23.9	33.8	40.0	6.2	400	254
2	80.032	38.1	7.2	2.6	24.3	23.6	40.0	16.4	400	132
3	222.551	38.1	11.0	3.6	23.9	28.8	46.0	17.2	100	0
4	740.336	36.1	19.1	7.4	22.8	39.8	46.0	6.2	100	210
----- Vertical ------										
5	68.744	34.4	6.2	2.1	24.4	18.3	40.0	21.7	200	360
6	667.596	35.3	18.6	7.1	22.9	38.1	46.0	7.9	100	184

*** 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.

Figure 7. Graphical representation of Radiated emission : SDI Mode ((1 ~ 6) GHz _ Peak)

Horizontal/ vertical

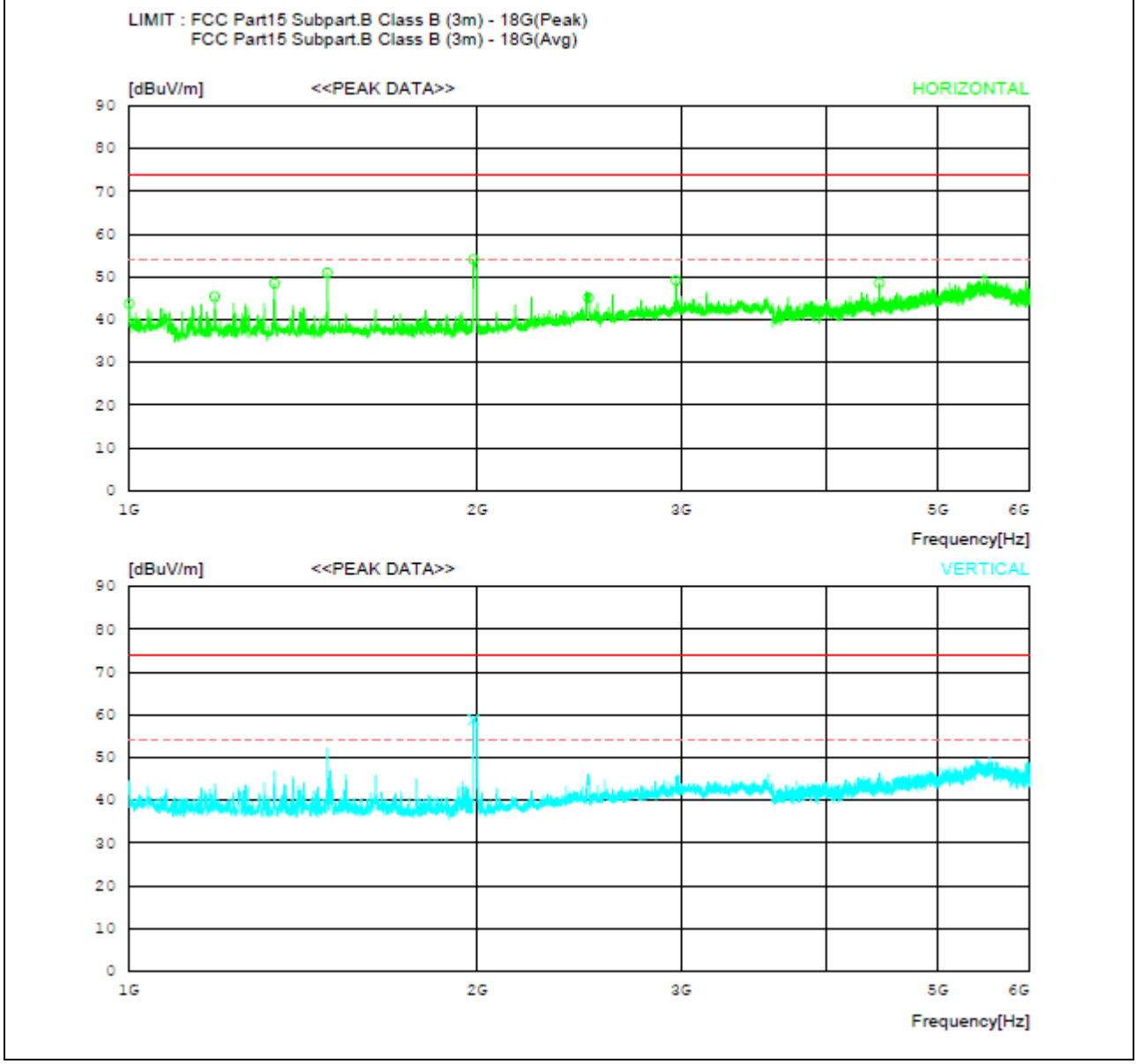


Table 7. **Radiated emission Test data :** SDI Mode ((1 ~ 6) GHz _ Peak)

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1000.625	57.7	23.9	3.3	41.2	43.7	74.0	30.3	100	165
2	1186.250	58.4	24.2	3.6	40.8	45.4	74.0	28.6	100	146
3	1336.250	60.7	24.4	3.8	40.4	48.5	74.0	25.5	100	0
4	1484.375	62.5	24.6	4.0	40.1	51.0	74.0	23	100	0
5	1985.625	64.3	24.6	4.7	39.5	54.1	74.0	19.9	100	302
6	2495.000	51.8	27.4	5.2	39.3	45.1	74.0	28.9	100	0
7	2970.000	54.0	28.9	5.6	39.3	49.2	74.0	24.8	100	0
8	4451.250	49.3	30.8	7.1	38.6	48.6	74.0	25.4	100	132
----- Vertical ------										
9	1985.000	69.1	24.6	4.7	39.5	58.9	74.0	15.1	100	181

*** 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.

Graphical representation of Radiated emission : SDI Mode ((1 ~ 6) GHz_Average)

Horizontal/ vertical

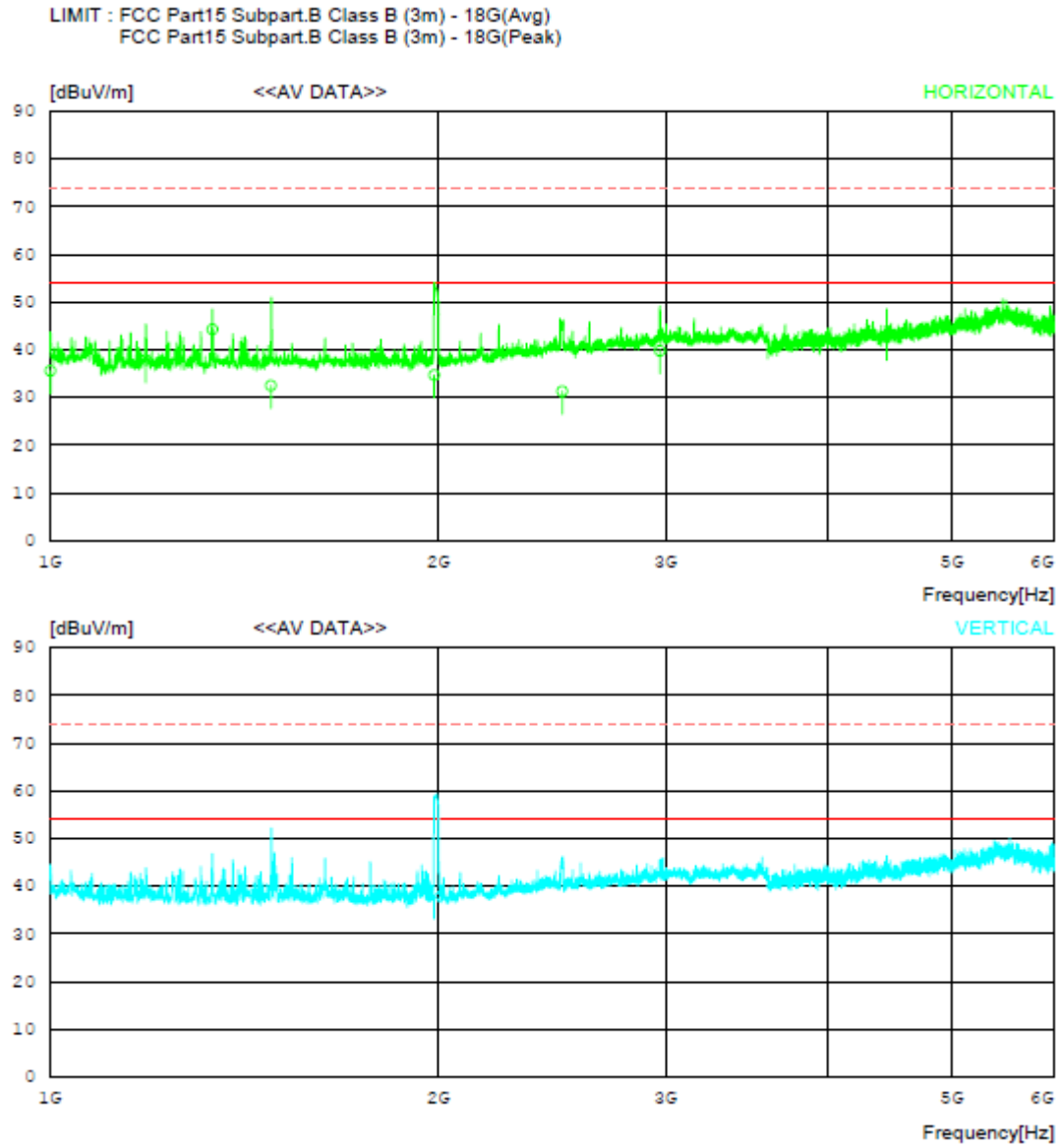


Table 8. Radiated emission Test data : SDI Mode ((1 ~ 6) GHz _ Average)

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1001.012	49.6	23.9	3.3	41.2	35.6	54.0	18.4	100	171
2	1186.834	50.9	24.2	3.6	40.8	37.9	54.0	16.1	100	142
3	1336.498	56.5	24.4	3.8	40.4	44.3	54.0	9.7	100	197
4	1483.545	44.0	24.6	4.0	40.1	32.5	54.0	21.5	100	298
5	1985.426	44.9	24.6	4.7	39.5	34.7	54.0	19.3	100	209
6	2494.536	38.0	27.4	5.2	39.3	31.3	54.0	22.7	100	136
7	2969.733	44.6	28.9	5.6	39.3	39.8	54.0	14.2	100	109
8	4450.642	43.3	30.8	7.1	38.6	42.6	54.0	11.4	100	138
----- Vertical ------										
9	1985.013	48.1	24.6	4.7	39.5	37.9	54.0	16.1	100	170

*** 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.