FCC DECLARATION OF CONFORMITY

FCC DECLARATION OF CONFORMITY

Certificate No	:	**EMC-2014/046**
Type of equipment	:	**Client Receiver**
Model Name	:	**C51-500**

It's herewith confirmed to comply with the requirements of FCC Part 15 Rules. (Class B)

Operating is subject to the following two conditions.

(1) This device may not cause harmful interference and,

(2) This device must accept any interference received,
Including interference that may cause undesired operation

The equipment was tested by EMC compliance. Ltd. for compliance with the requirements Set forth in the FCC Rules and Regulation Part 15 and the measurement procedure according to ANSI C63.4. The test was carried out from the submitted samples.
These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulations.

The following importer/ manufacturer is responsible for this declaration

Applicant	:	**HUMAX Co., Ltd.** **HUMAX Village, 11-4, Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-825, KOREA**
Manufacturer	:	**Kinpo Electronics (China) Co.,Ltd.** **SHA TOU VILLAGE,CHANG AN TOWN, DONG GUAN CITY, GUAN DONG PROVINCE, CHINA**

MANUFACTURER/IMPORTER

(Name) In-Seok, Seo

(Date) August 04, 2014

TESTING LABORATORY

(Name) Han-Seok, Yeom

(Date) August 04, 2014

FCC COMPLIANCE REPORT

Test report No	:	**EMC-2014/046**
Type of Equipment	:	**Client Receiver**
Model Name	:	**C51-500**
Applicant	:	**HUMAX Co., Ltd.** **HUMAX Village, 11-4, Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-825, KOREA**
Manufacturer	:	**Kinpo Electronics (China) Co.,Ltd.** **SHA TOU VILLAGE, CHANG AN TOWN, DONG GUAN CITY, GUAN DONG PROVINCE, CHINA**
Test standards	:	**FCC part 15 subpart B, Class B**
FCC ID	:	**O6ZC51**
Classification	:	**DoC**

Test Procedure and Items

- AC Power Line Conducted Emissions Measurement: ANSI C63.4-2009

- Radiated Emissions Measurement : ANSI C63.4-2009

Testing Laboratory	:	**EMC Compliance Ltd.**
Test result	:	**Complied**

The above equipment was tested by EMC compliance Testing Laboratory for compliance with the requirements of FCC Rules and Regulations. The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulations.

Date of receipt: 2014. 07. 22

Date of testing: 2014. 07. 30

Issued date: 2014. 08. 04

Tested by: PARK, GUN-SU

Approved by: YEOM, HAN-SEOK

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1. Applicant information

Applicant: HUMAX Co., Ltd.
Address: HUMAX Village, 11-4, Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, 463-825, KOREA
Telephone: +82-31-776-6400
Fax: +82-31-776-6149
E-mail: isseo@humaxdigital.com
Contact name: **Seo In Seok**

Manufacturer: Kinpo Electronics (China) Co.,Ltd.
Address: SHA TOU VILLAGE, CHANG AN TOWN, DONG GUAN CITY, GUAN DONG PROVINCE, CHINA

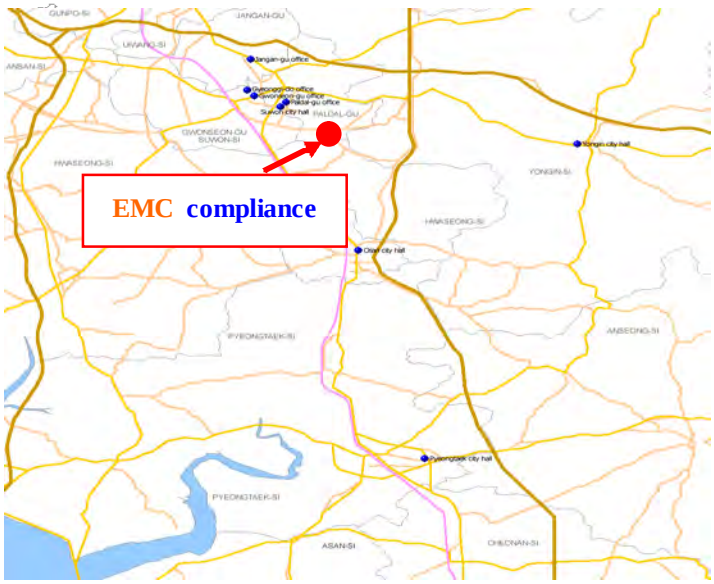
2. Laboratory information

Address

EMC compliance Ltd.
65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-390, Korea
Telephone Number: 82 31 336 9919
Facsimile Number: 82 505 299 8311

FCC CAB.: KR0040
VCCI Registration No. : R-3327, G-198, C-3706, T-1849
Industry Canada Registration No.: 8035A
KOLAS NO.: 231

SITE MAP



3. Test system configuration

3.1 Operation environment

		Temperature	Humidity	Pressure
Chamber(10 m)	:	19.2 °C	57.8 % R.H.	-
Shielded room(CE)	:	22.4 °C	48.1 % R.H.	-

Test site

These testing items were performed following locations;

Test item	Test site
Conducted Emission	Shielded Room
Radiated Emission	10 m Chamber

3.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC.
The factors contributing to uncertainties are test receiver, cable loss, antenna factor calibration, Antenna directivity, antenna factor variation with height, antenna phase center variation, antenna frequency interpolation, measurement distance variation, site imperfection, mismatch, and system repeatability. Based on CISPR 16-4-2, the measurement uncertainty level with a 95 % confidence level was applied.

Conducted emission measurement (C.L: Approx 95 %, k = 2)		
Shielded Room (CE#1)	9 ㎑ ~ 150 ㎑: ± 3.82 dB 150 ㎑ ~ 30 ㎒: ± 3.43 dB	
Shielded Room (CE#2)	9 ㎑ ~ 150 ㎑: ± 3.82 dB 150 ㎑ ~ 30 ㎒: ± 3.43 dB	
Shielded Room (CE#3)	9 ㎑ ~ 150 ㎑: ± 4.00 dB 150 ㎑ ~ 30 ㎒: ± 3.63 dB	
Radiated Emission measurement (C.L: Approx 95 %, k = 2)		
10 m Chamber (#F4)	30 ㎒ ~ 300 ㎒	3 m: + 4.56 dB, - 4.58 dB 10 m: + 4.56 dB, - 4.56 dB
	300 ㎒ ~ 1 000 ㎒	3 m: + 4.84 dB, - 4.85 dB 10 m: + 4.71 dB, - 4.72 dB
	1 ㎓ ~ 6 ㎓	3 m: + 6.19 dB, - 6.20 dB
	6 ㎓ ~ 18 ㎓	3 m: + 6.41 dB, - 6.53 dB
10 m Chamber (#F2)	30 ㎒ ~ 300 ㎒	3 m: + 4.86 dB, - 4.88 dB 10 m: + 4.86 dB, - 4.86 dB
	300 ㎒ ~ 1 000 ㎒	3 m: + 4.98 dB, - 4.99 dB 10 m: + 4.85 dB, - 4.87 dB
	1 ㎓ ~ 6 ㎓	3 m: + 6.19 dB, - 6.20 dB
	6 ㎓ ~ 18 ㎓	3 m: + 6.41 dB, - 6.53 dB

4. Description of E.U.T.

4.1 General information

Items	Description	Remark
System		
CPU	BCM7418ZZKFEB3G	
NOR Flash	MX25L25655FXCI-10G	32MB SNOR
DRAM	K4B2G1646Q-BCK0	256MB DDR3-1600
Front End		
MoCA		
Input frequency range	475 MHz ~ 625 MHz	
Input impedance	75ohm	
TX signal level	under +7dBm	
RX sensitivity	Min PHY Rate = 57 Mbps in conditions of Rx power level -66.1dBm	
Modulation	OFDM	
Input frequency range	475 MHz ~ 625 MHz	
Video/Audio Processing		
Video Decoding	MPEG-2 part 2 (ISO/IEC 13818-2) Main Profile @ Main Level MPEG-4 part 10 (AVC) Main and High profile Level 4.0	
Audio Decoding	MPEG-1 Part 3 (Layer II, AC-3) MPEG-4 Part 3 (HE-AAC), and ATSC A/52A [3, 5, and 12] (Dolby Digital) AAC+ (AAC-SBR)	
Output Resolution	1080p(24 frame)/1080i/720p/480p/480i	
Audio Mode	Single/Dual Mono/Stereo/Joint Stereo	
Conditional Access Interface & DRM		
CAS	N/A	
DRM	N/A	
CI+	N/A	
HW Security	N/A	No CAS
I/O Specification		
Mini-DIN	1 composite, 1 component(YPbPr), 2 Audio out(L/R)	
HDMI Out	A type connector(x1)	
S/PDIF Out	Coaxial connector(x1)	
USB	A type 2.0 connector(x1)	
Power Supply		
Power Type	EPS10	EPS12WR(LC51/SC51)
Power Consumption (Operation mode)	TBD	
Power Consumption (Standby mode)	TBD	
Input Voltage	120V +/-15%, 60Hz	
Power Indicator	Yes(Green LED)	
Power Switch	N/A	
Protection	Separate internal fuse & lightning protection	
Max Load for USB1	500mA	
Physical Specification		
Size (W x H x D)	150 x 93 x 26mm(W x D x H)	
Weight	TBD	

Items	Description	Remark
Front Panel		
LED display	1x Power indicator(Blue)/ 1x Network status(Yellow/Green)	
Control Buttons	1x Power key/ 1 x RBR key(side)	
RCU Sensor	1x IR IN/1 x RF4CE	
Rear Panel		
SWiM IN	F type connector(x1)	
Mini-DIN	10-pin mini-DIN connector(dedicated to DirecTV)(x1)	
HDMI Out	A type connector(x1)	
S/PDIF Out	Coaxial connector(x1)	
USB	A type 2.0 connector(x1)	
Power	DC Jack connector(x1) with LED	

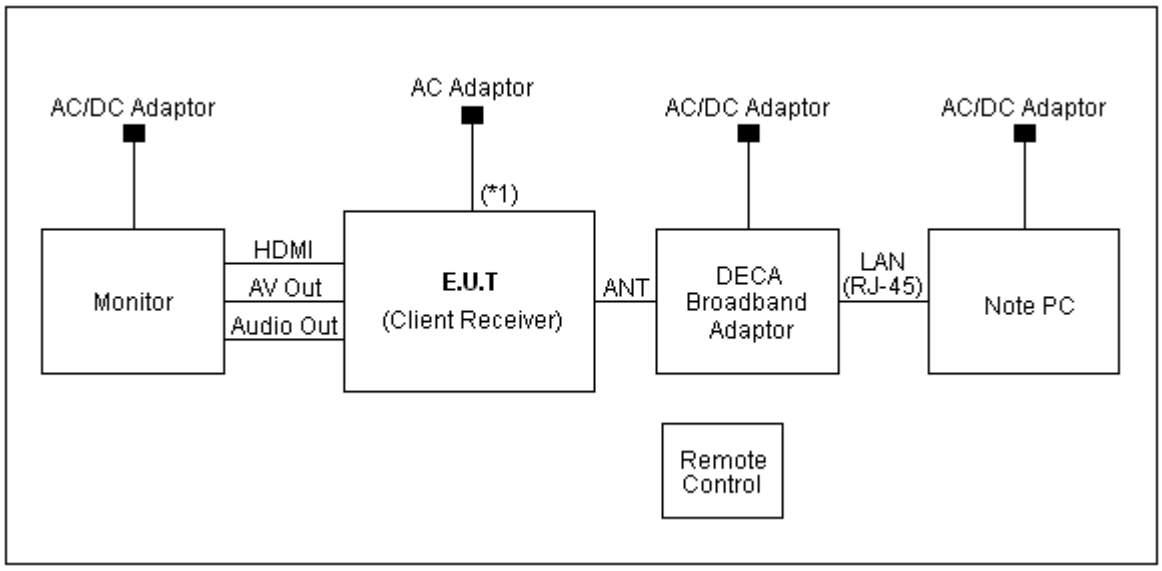
4.2 Product description

Type of product	Client Receiver
Model name (Basic)	C51-500
Model name (Variant)	-
Difference	-
Trade name	-
Serial no	Engineering Sample
Testing voltage	120 V, 60 Hz
Product rating	* AC Adaptor#1 (model name: EPS10R1-15) Input: 120 V, 60 Hz, 0.5 A Output: DC 12 V, 1.5 A * AC Adaptor#2 (model name: EPS10R1-16) Input: 120 V, 60 Hz, 0.5 A Output: DC 12 V, 1.5 A * AC Adaptor#3 (model name: EPS10R3-15) Input: 120 V, 60 Hz Output: DC 12 V, 1.5 A * AC Adaptor#4 (model name: EPS10R3-16) Input: 120 V, 60 Hz, 0.5 A Output: DC 12 V, 1.5 A
Internal clock frequency	Above 108 ㎒
Note	*AC/DC adaptor was provided by the manufacturer.

4.3 Auxiliary equipments

Type	Model / Part #	Serial number	Manufacturer
DECA Broadband Adaptor	DECABB1MRO-02	XED2A11431C1362	-
Note PC	E6400	-	DELL
Monitor	LV700	-	-

4.4 Test configuration



Note	Start		End		Cable	
*	Name	I/O port	Name	I/O port	Length (m)	Spec.
1	**EUT** (Client Receiver)	Power	AC Adaptor	Power	1.7	Non-Shield
2		ANT	DECA Broadband Adaptor	ANT	1.5	Shield
3		HDMI	Monitor	HDMI	1.7	Shield
4		AV Out	Monitor	AV In	1.5	Shield
5		Audio Out	Monitor	Audio In	1.5	Non-Shield
6	Note PC	LAN(RJ-45)	DECA Broadband Adaptor	LAN(RJ-45)	3.0	Shield

4.5 Operating conditions

The EUT was configured as normal intended use.

Test mode	Normal operating
1	Video monitoring test.

5. Summary of test results

In the above configuration tested, The EUT complied with the requirement of the specification

5.1 Summary of EMI emission test results

FCC Part 15 Subpart B (Class B)

ANSI C63.4 – 2009

Applied	Test items	Test method	Result
☒	Conducted Emission	ANSI C63.4 – 2009	Complied
☒	Radiated Emission	ANSI C63.4 – 2009	Complied

6. Test results

6.1 Conducted Emission

Test specification	FCC Part 15, Section 15.107(a), Class B		
Testing voltage	120 V, 60 Hz		
Test facility	Shielded room (CE#2)		
Date	2014. 07. 30		
Temperature (°C)	22.4 °C	Humidity (% R.H.)	48.1 % R.H.
Remarks	Complied		

6.1.1 Limits of conducted emission measurement

Frequency [㎒]	Class A (dB(㎶))		Class B (dB(㎶))	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79	66	66 ~ 56 *	56 ~ 46*
0.5 ~ 5	73	60	56	46
5 ~ 30	73	60	60	50

*The limit decreases linearly with the logarithm of frequency.

6.1.2 Measurement procedure

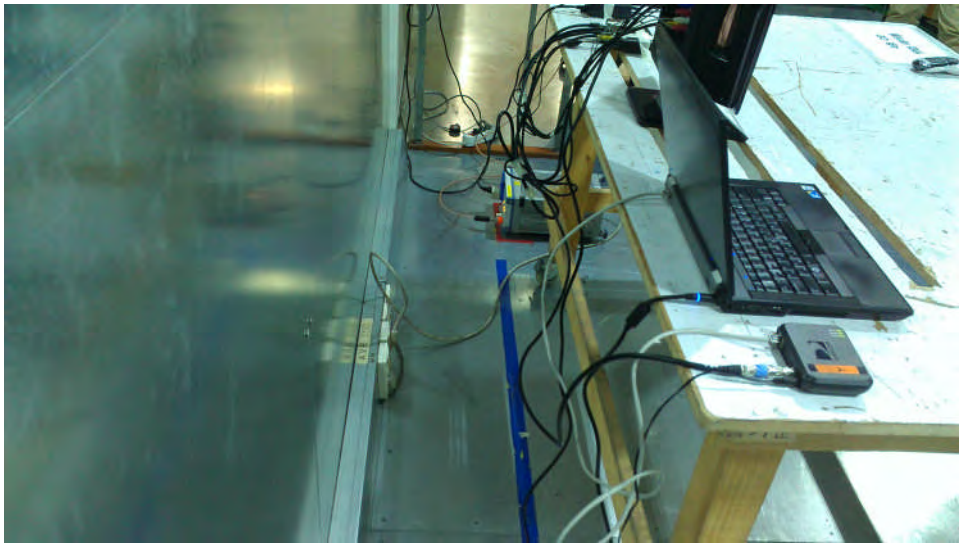
The measurements were performed in a shielded room. EUT was setup as shown in photograph and placed on a non-metallic table height of 0.8 m above the reference ground plane. The rear of table was located 0.4 m to the vertical conducted plane. EUT was power through the LISN, which was bonded to the ground plane. The LISN power was filtered. Each EUT power lead, except ground (safety) lead was individually connected through a LISN to input power source. EUT signal cables that hung closer than 0.4 m to the Horizontal metal ground 0.3 m ~ 0.4 m long. The power cord was bundles in the center. All peripheral equipment was powered from a sub LISN. The LISN and ISN were positioned 0.8 m from the EUT. Peak and Average detection were used in preliminary testing and Quasi-peak and Average detections were used at final measurement.

6.1.3 Used equipments

Equipment	Model	Serial No.	Makers	Next Cal. Date	Used
Test Receiver	ESCI7	100732	R&S	2015.01.27	☐
Test Receiver	ESCI	100001	R&S	2015.07.14	☒
Test Receiver	ESCI	100710	R&S	2014.10.28	☐
LISN	ENV216	101358	R&S	2014.10.04	☒
LISN	ESH3-Z5	100267	R&S	2015.06.24	☒

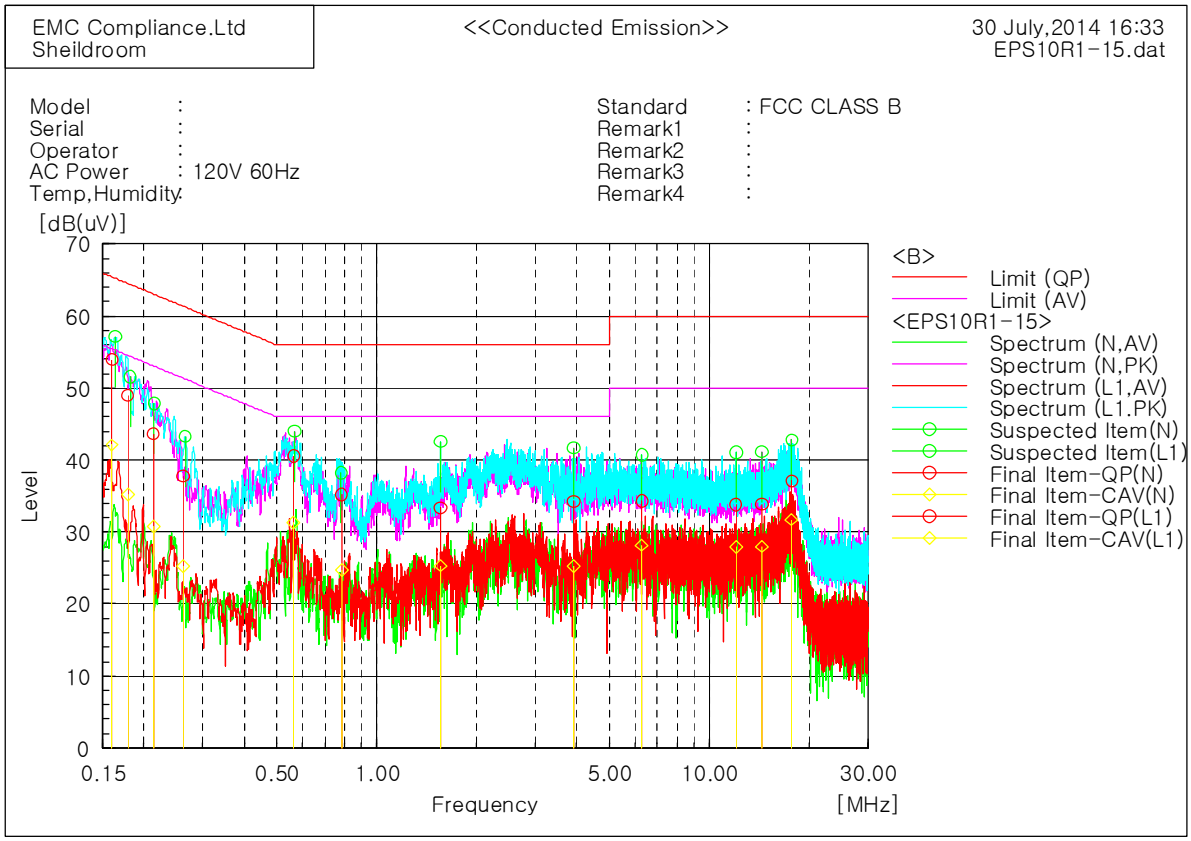
6.1.4 Photographs of test setup

* AC Main



6.1.5 Conducted emission measurement result

* AC Main (C51-500) _AC Adaptor#1



Final Result

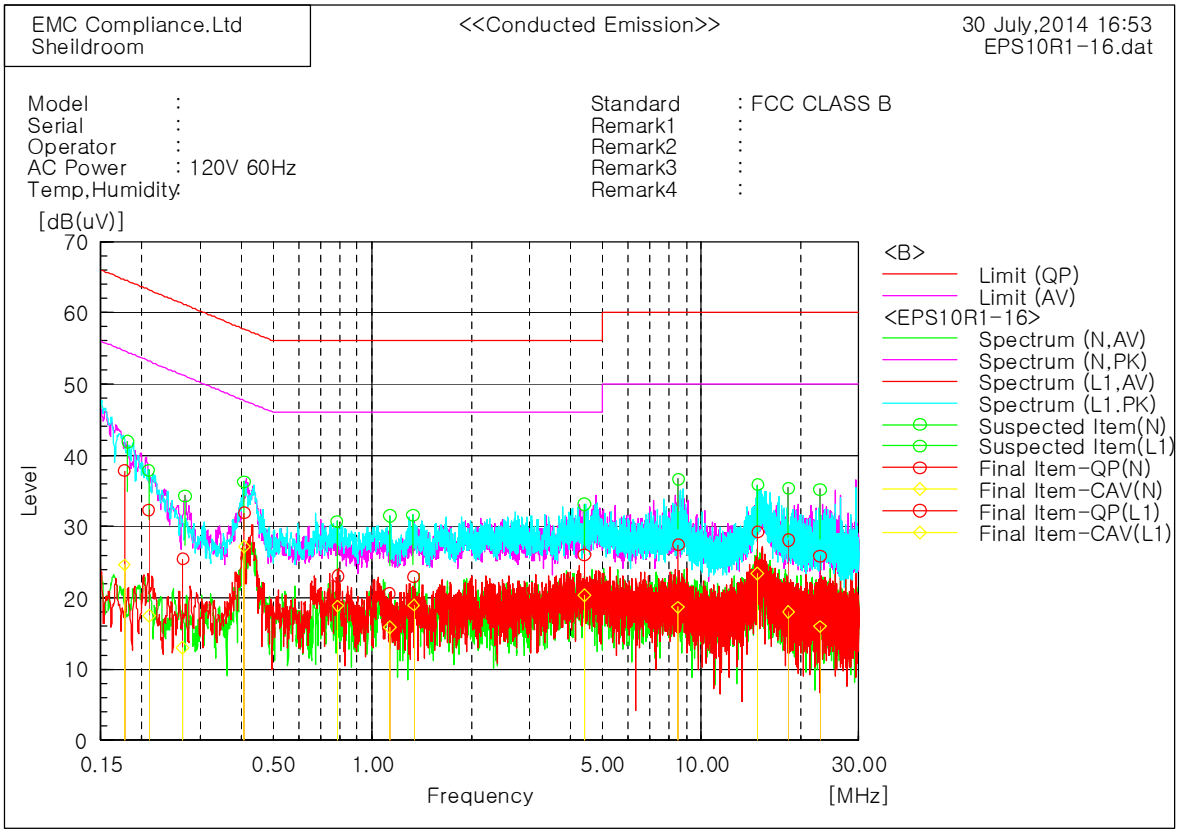
--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.17882	38.8	25.1	10.1	48.9	35.2	64.5	54.5	15.6	19.3	
2	0.56348	30.4	21.1	10.2	40.6	31.3	56.0	46.0	15.4	14.7	
3	3.91689	24.3	15.3	9.9	34.2	25.2	56.0	46.0	21.8	20.8	
4	14.42322	23.8	18.0	10.0	33.8	28.0	60.0	50.0	26.2	22.0	
5	17.75605	27.0	21.6	10.1	37.1	31.7	60.0	50.0	22.9	18.3	

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.16029	43.8	32.0	10.1	53.9	42.1	65.4	55.4	11.5	13.3	
2	0.2137	33.5	20.7	10.1	43.6	30.8	63.1	53.1	19.5	22.3	
3	0.26211	27.9	15.4	9.9	37.8	25.3	61.4	51.4	23.6	26.1	
4	0.78623	25.1	14.7	10.1	35.2	24.8	56.0	46.0	20.8	21.2	
5	1.55641	23.5	15.4	9.9	33.4	25.3	56.0	46.0	22.6	20.7	
6	6.28423	24.5	18.4	9.8	34.3	28.2	60.0	50.0	25.7	21.8	
7	12.07441	23.9	18.0	9.9	33.8	27.9	60.0	50.0	26.2	22.1	

* AC Main (C51-500) _AC Adaptor#2



Final Result

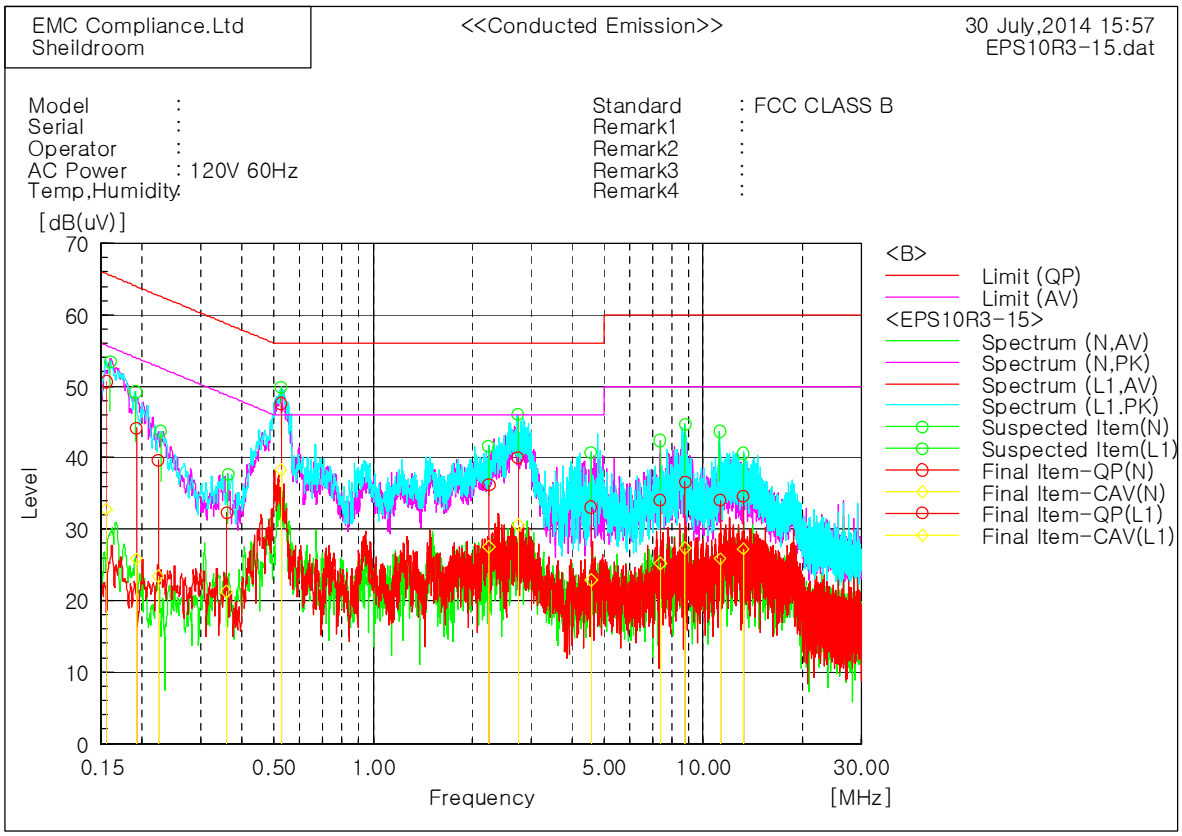
--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.17694	27.7	14.5	10.1	37.8	24.6	64.6	54.6	26.8	30.0	
2	0.26601	15.6	3.1	9.9	25.5	13.0	61.2	51.2	35.7	38.2	
3	8.51073	17.6	8.8	9.8	27.4	18.6	60.0	50.0	32.6	31.4	
4	18.40235	18.0	7.8	10.1	28.1	17.9	60.0	50.0	31.9	32.1	
5	22.94259	15.6	5.7	10.2	25.8	15.9	60.0	50.0	34.2	34.1	

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.21015	22.3	7.3	10.1	32.4	17.4	63.2	53.2	30.8	35.8	
2	0.40989	21.7	17.0	10.2	31.9	27.2	57.7	47.7	25.8	20.5	
3	0.78801	12.9	8.7	10.1	23.0	18.8	56.0	46.0	33.0	27.2	
4	1.1317	10.6	5.9	10.0	20.6	15.9	56.0	46.0	35.4	30.1	
5	1.33786	12.9	9.0	10.0	22.9	19.0	56.0	46.0	33.1	27.0	
6	4.41363	16.2	10.6	9.8	26.0	20.4	56.0	46.0	30.0	25.6	
7	14.80457	19.2	13.4	10.0	29.2	23.4	60.0	50.0	30.8	26.6	

* AC Main (C51-500) _AC Adaptor#3



Final Result

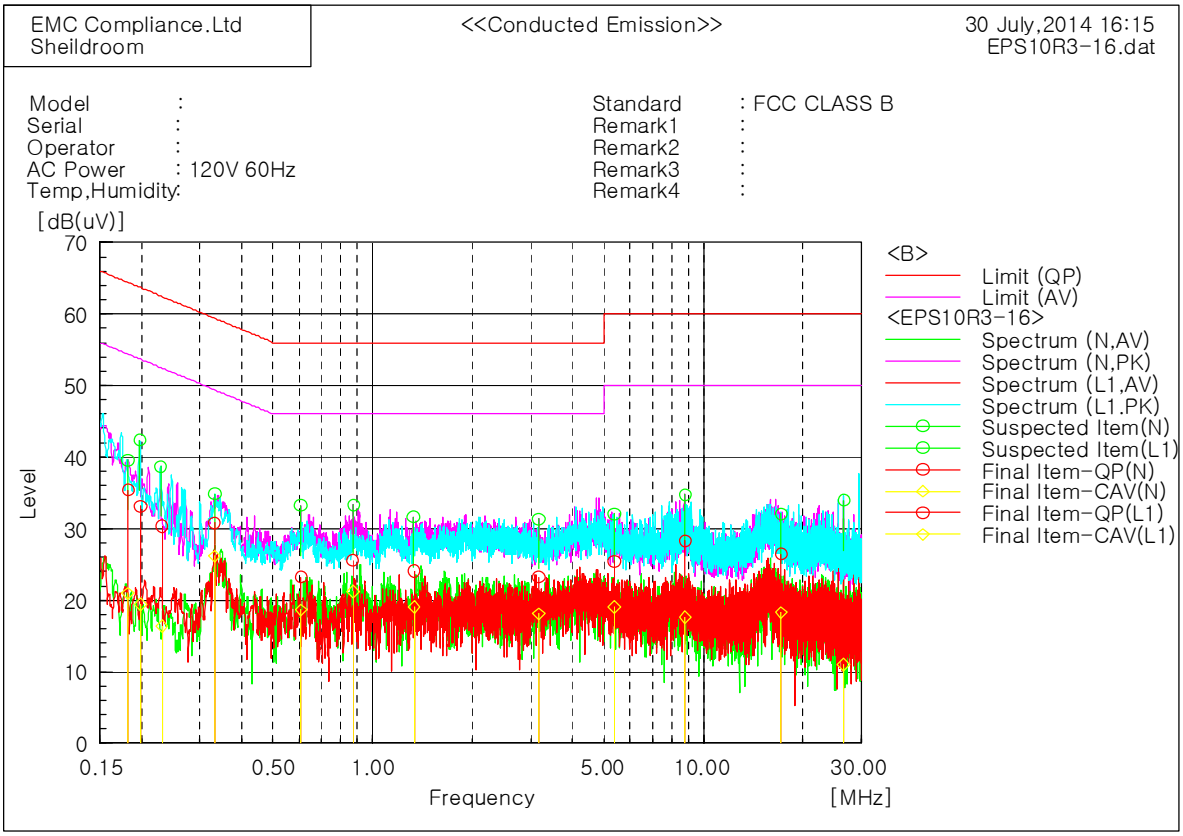
--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	7.38962	24.2	15.4	9.8	34.0	25.2	60.0	50.0	26.0	24.8	

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.15556	40.5	22.7	10.1	50.6	32.8	65.7	55.7	15.1	22.9	
2	0.19157	34.0	15.7	10.1	44.1	25.8	64.0	54.0	19.9	28.2	
3	0.22308	29.7	13.4	10.0	39.7	23.4	62.7	52.7	23.0	29.3	
4	0.35959	22.2	11.2	10.1	32.3	21.3	58.7	48.7	26.4	27.4	
5	0.52563	37.4	28.1	10.2	47.6	38.3	56.0	46.0	8.4	7.7	
6	2.23949	26.3	17.6	9.9	36.2	27.5	56.0	46.0	19.8	18.5	
7	2.74209	30.1	20.7	9.9	40.0	30.6	56.0	46.0	16.0	15.4	
8	4.5685	23.3	13.1	9.8	33.1	22.9	56.0	46.0	22.9	23.1	
9	8.81838	26.8	17.6	9.8	36.6	27.4	60.0	50.0	23.4	22.6	
10	11.22232	24.1	16.0	9.9	34.0	25.9	60.0	50.0	26.0	24.1	
11	13.19542	24.6	17.3	10.0	34.6	27.3	60.0	50.0	25.4	22.7	

* AC Main (C51-500) _AC Adaptor#4



Final Result

--- N Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.1822	25.3	10.9	10.1	35.4	21.0	64.4	54.4	29.0	33.4	
2	0.60788	13.1	8.4	10.2	23.3	18.6	56.0	46.0	32.7	27.4	
3	0.87149	15.4	11.1	10.1	25.5	21.2	56.0	46.0	30.5	24.8	
4	1.33299	14.2	9.1	9.9	24.1	19.0	56.0	46.0	31.9	27.0	
5	3.17072	13.3	8.2	9.9	23.2	18.1	56.0	46.0	32.8	27.9	
6	5.37105	15.6	9.2	9.8	25.4	19.0	60.0	50.0	34.6	31.0	
7	8.79299	18.5	7.9	9.8	28.3	17.7	60.0	50.0	31.7	32.3	
8	17.18871	16.3	8.1	10.1	26.4	18.2	60.0	50.0	33.6	31.8	
9	26.53093	8.5	0.8	10.1	18.6	10.9	60.0	50.0	41.4	39.1	

--- L1 Phase ---

No.	Frequency [MHz]	Reading QP [dB(uV)]	Reading CAV [dB(uV)]	c.f [dB]	Result QP [dB(uV)]	Result CAV [dB(uV)]	Limit QP [dB(uV)]	Limit AV [dB(uV)]	Margin QP [dB]	Margin CAV [dB]	Remark
1	0.19852	23.0	9.3	10.1	33.1	19.4	63.7	53.7	30.6	34.3	
2	0.23029	20.3	6.4	10.0	30.3	16.4	62.4	52.4	32.1	36.0	
3	0.33178	20.7	16.0	10.1	30.8	26.1	59.4	49.4	28.6	23.3	

6.2 Radiated Emission

Test specification	FCC Part 15, Section 15.109(g), Class B		
Testing voltage	120 V, 60 Hz		
Test facility	10 m Chamber (#F2)		
Test distance	3 m		
Date	2014. 07. 30		
Temperature (°C)	19.2 °C	Humidity (% R.H.)	57.8 % R.H.
Remarks	Complied		

6.2.1 Limits of radiated emission measurement

Frequency [㎒]	Class A (dB(㎶/m)) @ 10 m	Class B (dB(㎶/m)) @ 3 m
30-88	39	40
88-216	43.5	43.5
216-960	46.4	46
Above 960	49.5	54

*** Note- Alternative standard: CISPR, Pub. 22 ***

6.2.2 Measurement procedure

The test was done at a 10 m chamber with a quasi-peak detector. EUT was placed on a non-metallic table height of 0.8 m above the reference ground plane. Cables were folded back and forth forming a bundle 0.3 m to 0.4 m long and were hanged at a 0.4 m height to the ground plane.
Cables connected to EUT were fixed to cause maximum emission. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

6.2.3 Used equipments

Equipment	Model no.	Serial no.	Makers	Next Cal. Date	Used
Test Receiver	ESCI7	100732	R&S	2015.01.27	☐
Test Receiver	ESCI	100001	R&S	2015.07.14	☐
Test Receiver	ESCI	100710	R&S	2014.10.28	☐
Test Receiver	ESR	101078	R&S	2015.02.24	☒
Bi-Log Antenna	VULB 9168	440	SCHWARZBECK	2015.10.16	☒
Amplifier	310N	293004	SONOMA INSTRUMENT	2014.10.31	☒
3 dB Attenuator	8491B	22981	HP	2015.03.04	☒
Antenna Mast	MA4000-EP	303	Innco Systems	-	☒
Turn Table	DT2000S-1t	079	Innco Systems	-	☒
Amplifier	8449B	3008A02343	AGILENT	2014.10.31	☒
Horn ANT	3115	00155772	ETS	2015.02.26	☒
Horn ANT	3117	00155787	ETS	2015.02.26	☒
Spectrum Analyzer	E4407B	US39010142	AGILENT	2014.10.21	☐

6.2.4 Sample calculation

The field strength is calculated adding the antenna Factor, cable loss and, Antenna pad adding, subtracting the amplifier gain from the measured reading.

The sample calculation is as follow:

Result = M.R + C.F(A.F + C.L +3 dB Att – A.G)

M.R = Meter Reading

C.F = Correction Factor

A.F = Antenna Factor

C.L = Cable Loss

A.G= Amplifier Gain

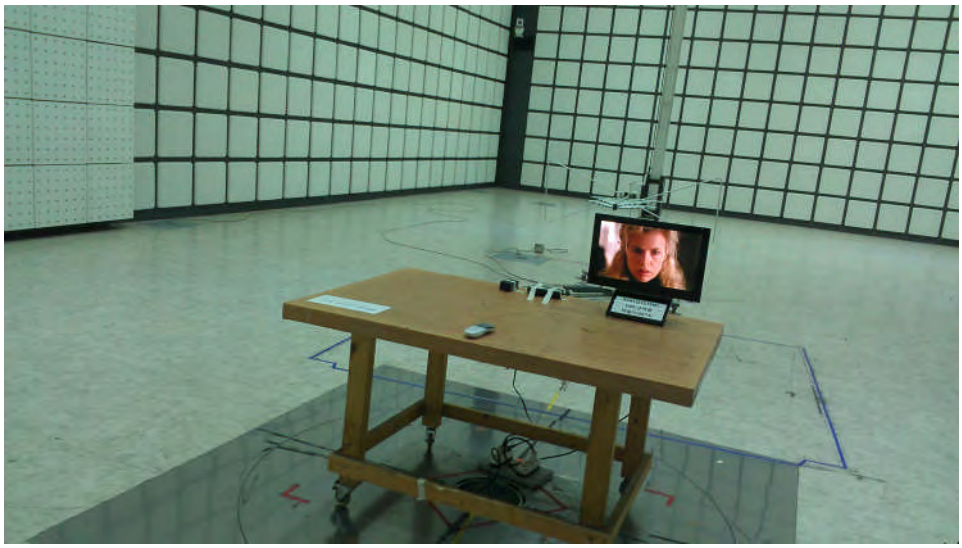
3 dB Att = 3 dB Attenuator

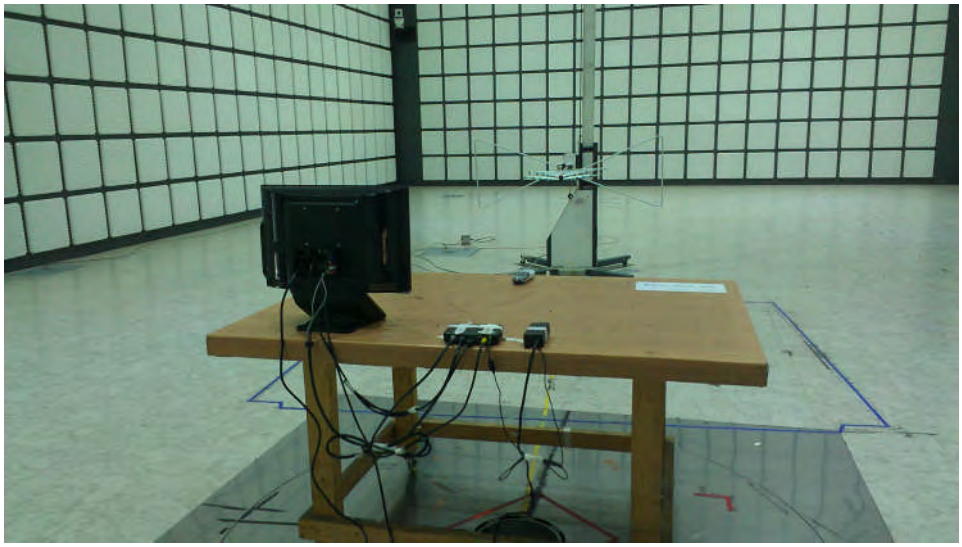
If M.R is 30 dB, A.F 12 dB, C.L 5 dB, 3 dB, A.G 35 dB

The result is 30 + 12 + 5 + 3 – 35 = 15 dB(μV/m)

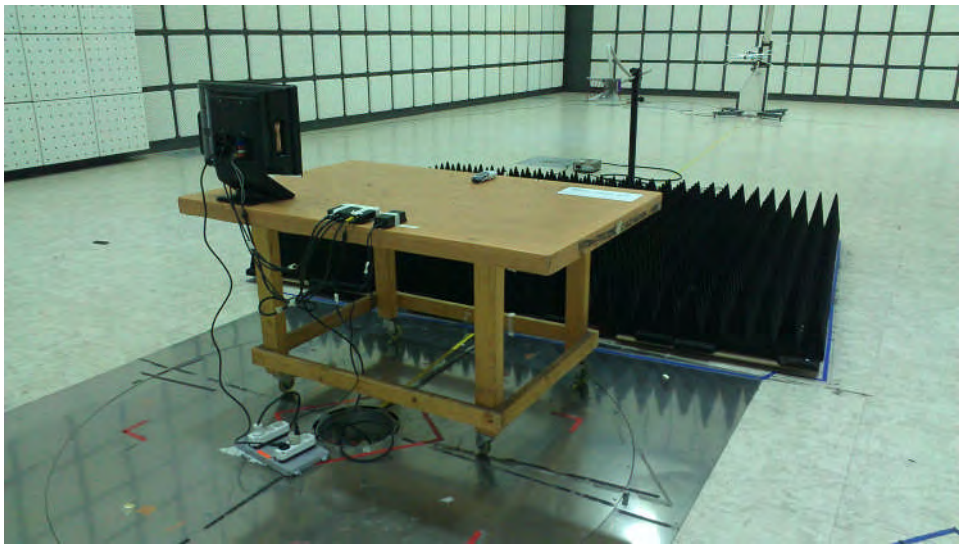
6.2.5 Photographs of test setup

* 30 ㎒ ~ 1 ㎓





* 1 ㎓ ~ 18 ㎓ (Horn ANT_3115)

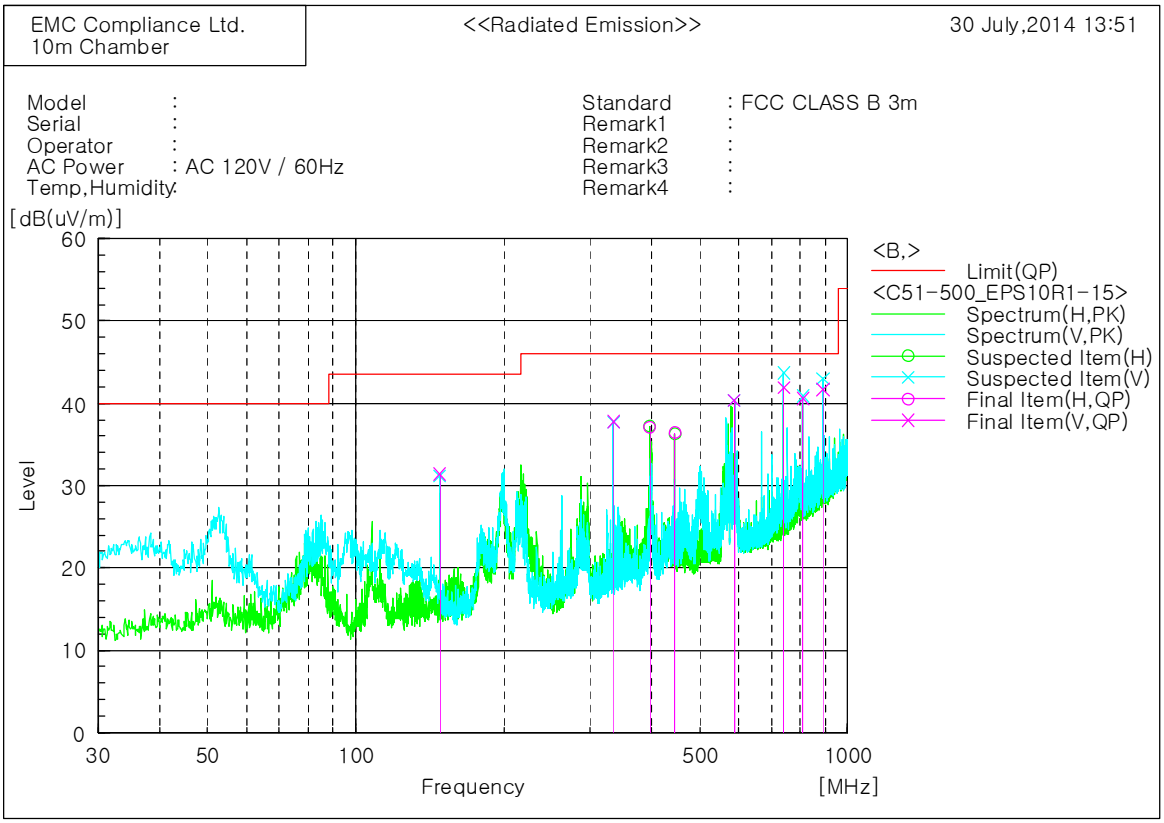


* 1 ㎓ ~ 18 ㎓ (Horn ANT_3117)

6.2.6 Radiated emission measurement result

*** Graph and Data**

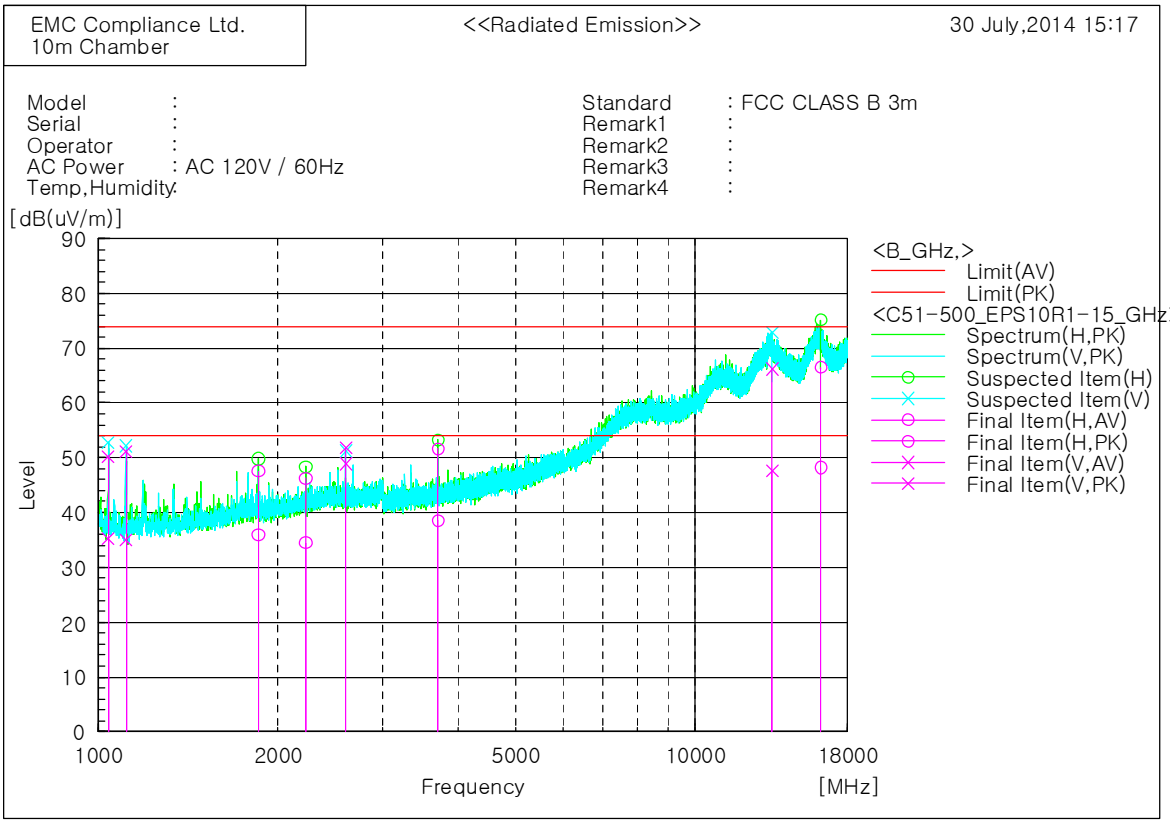
* 30 ㎒ ~ 1 ㎓ (C51-500) _AC Adaptor#1



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	148.340	V	45.0	-13.6	31.4	43.5	12.1	100.0	48.5
2	334.095	V	47.8	-10.0	37.8	46.0	8.2	100.0	162.9
3	396.296	H	45.2	-8.1	37.1	46.0	8.9	100.0	118.4
4	445.039	H	43.3	-6.9	36.4	46.0	9.6	100.0	198.4
5	588.356	V	43.7	-3.3	40.4	46.0	5.6	100.0	48.5
6	741.859	V	42.6	-0.7	41.9	46.0	4.1	100.0	155.4
7	810.123	V	39.7	0.9	40.6	46.0	5.4	100.0	332.9
8	890.147	V	39.0	2.7	41.7	46.0	4.3	100.0	187.0

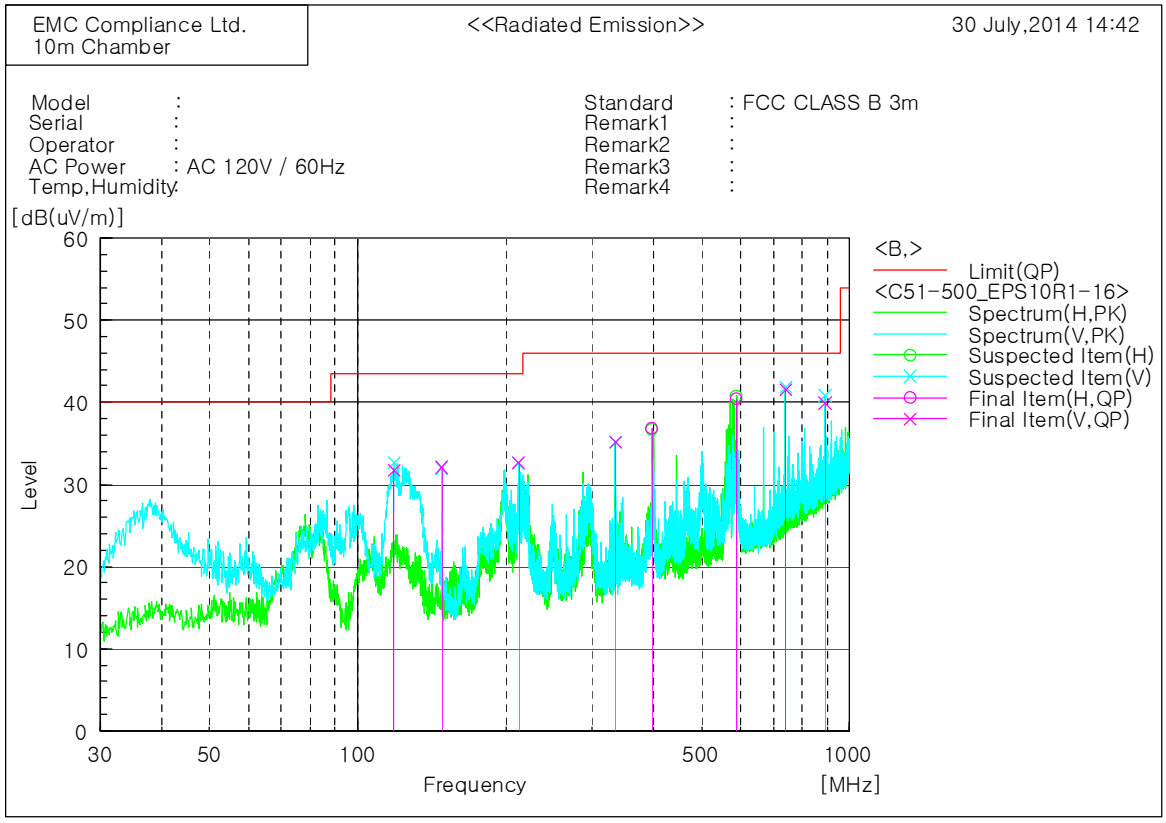
* 1 ㎓ ~ 18 ㎓ (C51-500) _AC Adaptor#1



Final Result

No.	Frequency [MHz]	(P)	Reading AV [dB(uV)]	Reading PK [dB(uV)]	c.f [dB(1/m)]	Result AV [dB(uV/m)]	Result PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]
1	1038.750	V	42.8	57.8	-7.6	35.2	50.2	54.0	74.0	18.8	23.8	100.0	288.1
2	1112.500	V	42.1	58.3	-7.1	35.0	51.2	54.0	74.0	19.0	22.8	100.0	288.1
3	1854.375	H	38.7	50.3	-2.7	36.0	47.6	54.0	74.0	18.0	26.4	100.0	230.7
4	2225.000	H	35.3	47.1	-0.8	34.5	46.3	54.0	74.0	19.5	27.7	100.0	138.5
5	2596.250	V	48.8	51.7	0.1	48.9	51.8	54.0	74.0	5.1	22.2	100.0	162.9
6	3708.750	H	35.6	48.7	3.0	38.6	51.7	54.0	74.0	15.4	22.3	100.0	185.4
7	13466.999	V	19.3	37.9	28.3	47.6	66.2	54.0	74.0	6.4	7.8	100.0	165.2
8	16235.998	H	18.3	36.6	29.9	48.2	66.5	54.0	74.0	5.8	7.5	100.0	319.6

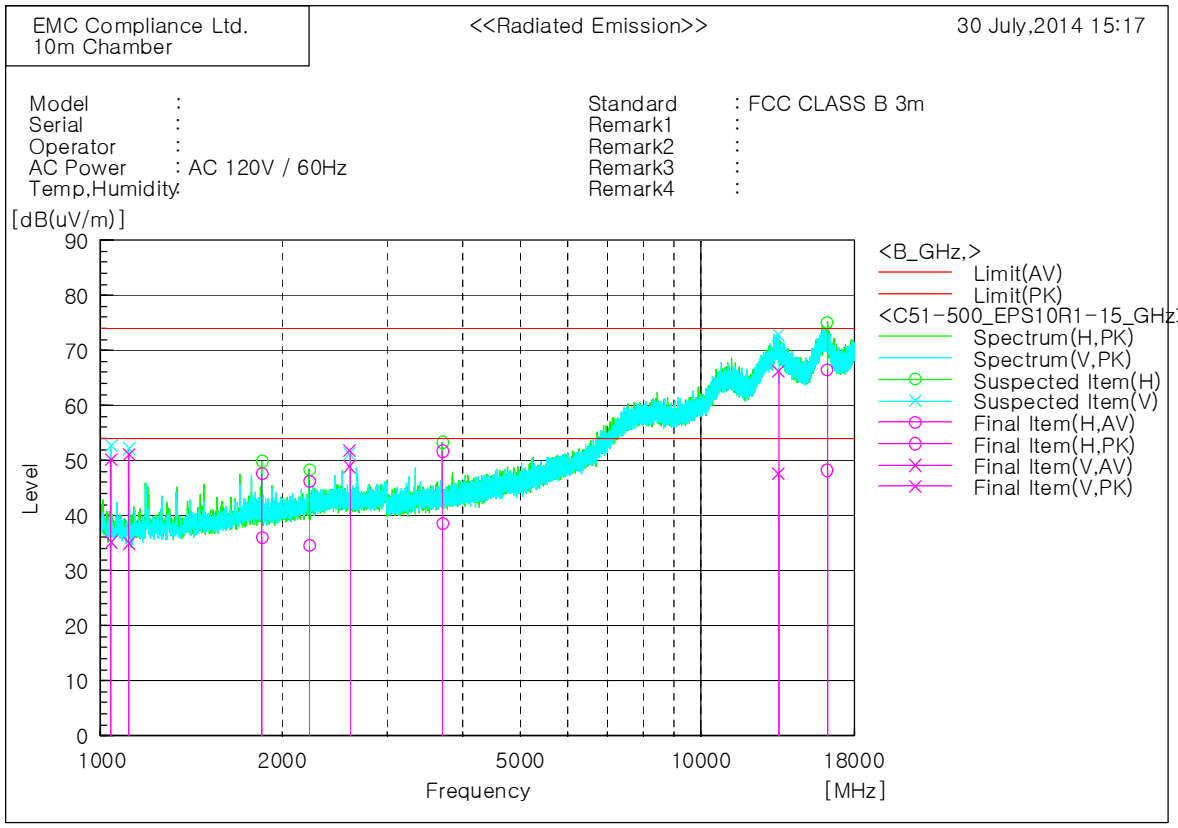
* 30 ㎒ ~ 1 ㎓ (C51-500) _AC Adaptor#2



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	118.513	V	47.6	-15.9	31.7	43.5	11.8	100.0	342.9
2	148.340	V	45.7	-13.6	32.1	43.5	11.4	100.0	315.7
3	212.603	V	47.9	-15.2	32.7	43.5	10.8	199.0	6.0
4	334.338	V	45.2	-10.0	35.2	46.0	10.8	199.0	160.5
5	396.296	H	44.9	-8.1	36.8	46.0	9.2	100.0	129.6
6	588.356	H	43.7	-3.3	40.4	46.0	5.6	201.0	156.9
7	741.859	V	42.2	-0.7	41.5	46.0	4.5	100.0	324.8
8	890.147	V	37.2	2.7	39.9	46.0	6.1	100.0	180.1

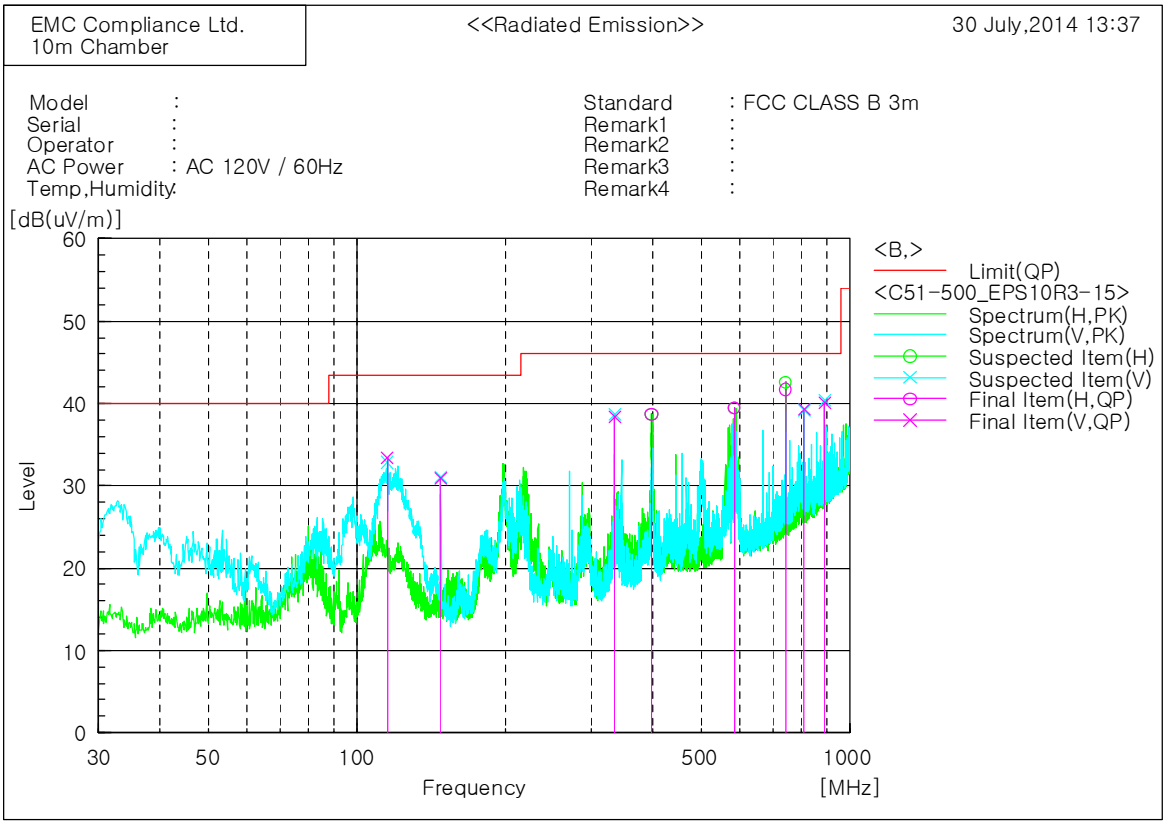
* 1 ㎓ ~ 18 ㎓ (C51-500) _AC Adaptor#2



Final Result

No.	Frequency [MHz]	(P)	Reading AV [dB(uV)]	Reading PK [dB(uV)]	c.f [dB(1/m)]	Result AV [dB(uV/m)]	Result PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]
1	1038.750	V	42.8	57.8	-7.6	35.2	50.2	54.0	74.0	18.8	23.8	100.0	288.1
2	1112.500	V	42.1	58.3	-7.1	35.0	51.2	54.0	74.0	19.0	22.8	100.0	288.1
3	1854.375	H	38.7	50.3	-2.7	36.0	47.6	54.0	74.0	18.0	26.4	100.0	230.7
4	2225.000	H	35.3	47.1	-0.8	34.5	46.3	54.0	74.0	19.5	27.7	100.0	138.5
5	2596.250	V	48.8	51.7	0.1	48.9	51.8	54.0	74.0	5.1	22.2	100.0	162.9
6	3708.750	H	35.6	48.7	3.0	38.6	51.7	54.0	74.0	15.4	22.3	100.0	185.4
7	13466.999	V	19.3	37.9	28.3	47.6	66.2	54.0	74.0	6.4	7.8	100.0	165.2
8	16235.998	H	18.3	36.6	29.9	48.2	66.5	54.0	74.0	5.8	7.5	100.0	319.6

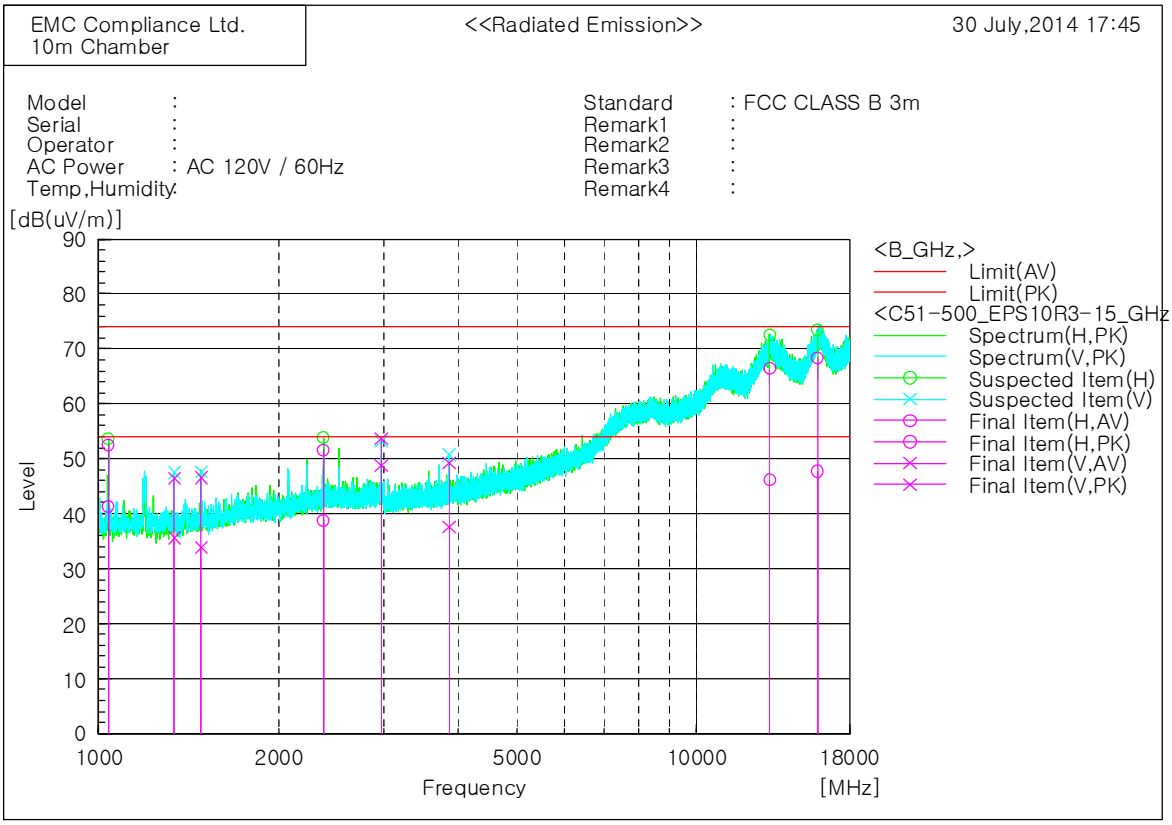
* 30 ㎒ ~ 1 ㎓ (C51-500) _AC Adaptor#3



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	115.481	V	49.6	-16.2	33.4	43.5	10.1	100.0	4.5
2	148.340	V	44.5	-13.6	30.9	43.5	12.6	100.0	281.2
3	334.216	V	48.4	-10.0	38.4	46.0	7.6	100.0	183.3
4	396.903	H	46.8	-8.1	38.7	46.0	7.3	100.0	36.2
5	583.385	H	42.9	-3.4	39.5	46.0	6.5	201.0	148.4
6	741.859	H	42.4	-0.7	41.7	46.0	4.3	201.0	148.4
7	810.123	V	38.4	0.9	39.3	46.0	6.7	100.0	4.5
8	890.269	V	37.4	2.7	40.1	46.0	5.9	100.0	169.7

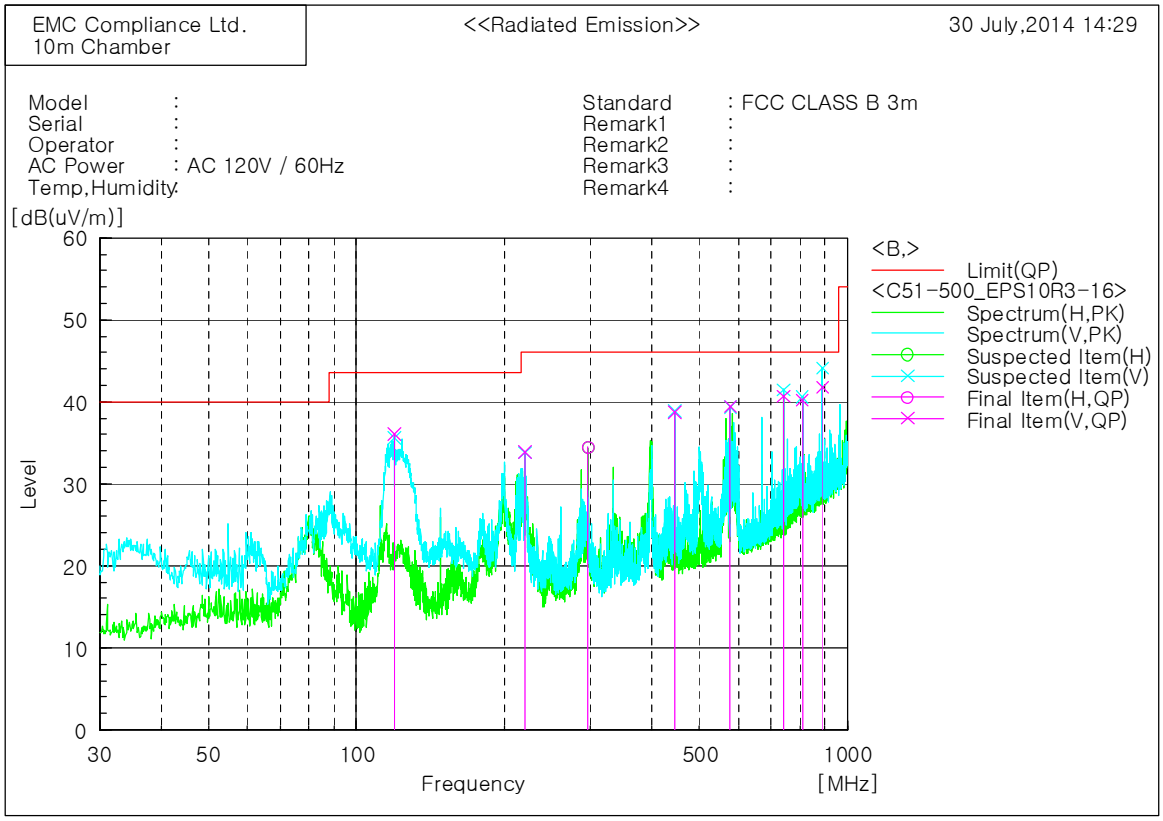
* 1 ㎓ ~ 18 ㎓ (C51-500) _AC Adaptor#3



Final Result

No.	Frequency [MHz]	(P)	Reading AV [dB(uV)]	Reading PK [dB(uV)]	c.f [dB(1/m)]	Result AV [dB(uV/m)]	Result PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]
1	1038.125	H	48.9	60.1	-7.6	41.3	52.5	54.0	74.0	12.7	21.5	100.0	273.1
2	1337.500	V	41.3	52.1	-5.7	35.6	46.4	54.0	74.0	18.4	27.6	100.0	142.5
3	1483.750	V	38.6	51.4	-4.8	33.8	46.6	54.0	74.0	20.2	27.4	100.0	264.6
4	2373.750	H	38.9	51.7	-0.1	38.8	51.6	54.0	74.0	15.2	22.4	100.0	108.8
5	2967.500	V	48.6	53.5	0.2	48.8	53.7	54.0	74.0	5.2	20.3	100.0	193.8
6	3857.500	V	34.1	45.7	3.5	37.6	49.2	54.0	74.0	16.4	24.8	100.0	213.4
7	13256.999	H	17.2	37.4	29.0	46.2	66.4	54.0	74.0	7.8	7.6	100.0	321.4
8	15913.498	H	17.6	38.3	30.1	47.7	68.4	54.0	74.0	6.3	5.6	100.0	346.4

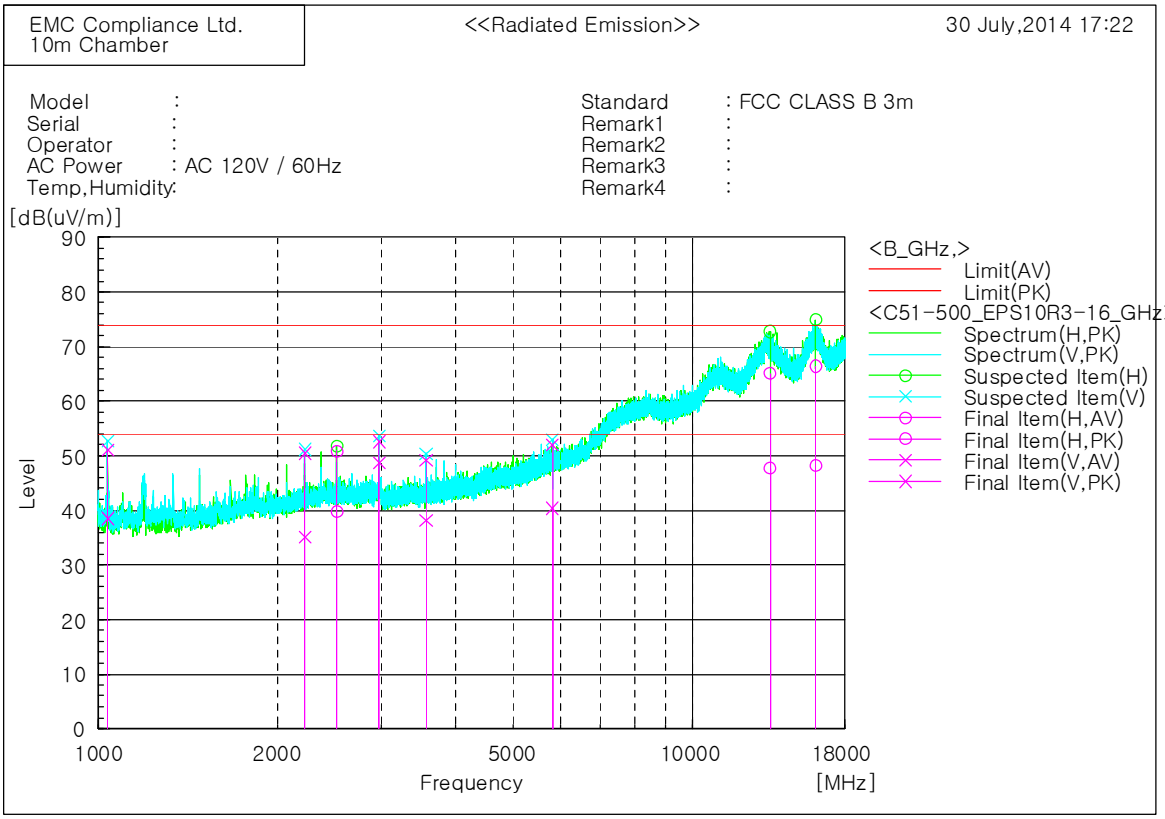
* 30 ㎒ ~ 1 ㎓ (C51-500) _AC Adaptor#4



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(uV)]	c.f [dB(1/m)]	Result QP [dB(uV/m)]	Limit QP [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	119.604	V	51.9	-15.8	36.1	43.5	7.4	100.0	24.2
2	220.363	V	48.6	-14.7	33.9	46.0	12.1	100.0	353.8
3	296.750	H	45.6	-11.1	34.5	46.0	11.5	100.0	170.8
4	445.039	V	45.6	-6.9	38.7	46.0	7.3	100.0	152.5
5	578.293	V	43.0	-3.5	39.5	46.0	6.5	100.0	54.3
6	741.859	V	41.4	-0.7	40.7	46.0	5.3	100.0	182.7
7	810.123	V	39.3	0.9	40.2	46.0	5.8	100.0	353.8
8	890.114	V	39.1	2.7	41.8	46.0	4.2	200.0	202.2

* 1 ㎓ ~ 18 ㎓ (C51-500) _AC Adaptor#4



Final Result

No.	Frequency [MHz]	(P)	Reading AV [dB(uV)]	Reading PK [dB(uV)]	c.f [dB(1/m)]	Result AV [dB(uV/m)]	Result PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]
1	1038.750	V	46.1	58.7	-7.6	38.5	51.1	54.0	74.0	15.5	22.9	100.0	151.5
2	2225.625	V	35.9	51.3	-0.8	35.1	50.5	54.0	74.0	18.9	23.5	100.0	124.4
3	2521.875	H	39.6	50.7	0.1	39.7	50.8	54.0	74.0	14.3	23.2	100.0	117.6
4	2966.875	V	48.5	52.4	0.2	48.7	52.6	54.0	74.0	5.3	21.4	100.0	189.3
5	3560.625	V	35.6	46.7	2.5	38.1	49.2	54.0	74.0	15.9	24.8	100.0	177.2
6	5806.250	V	30.6	42.1	9.8	40.4	51.9	54.0	74.0	13.6	22.1	100.0	356.9
7	13471.499	H	19.4	36.8	28.3	47.7	65.1	54.0	74.0	6.3	8.9	100.0	315.1
8	16072.498	H	17.9	36.1	30.3	48.2	66.4	54.0	74.0	5.8	7.6	100.0	81.5

7. E.U.T. photographs

Front View

Rear View

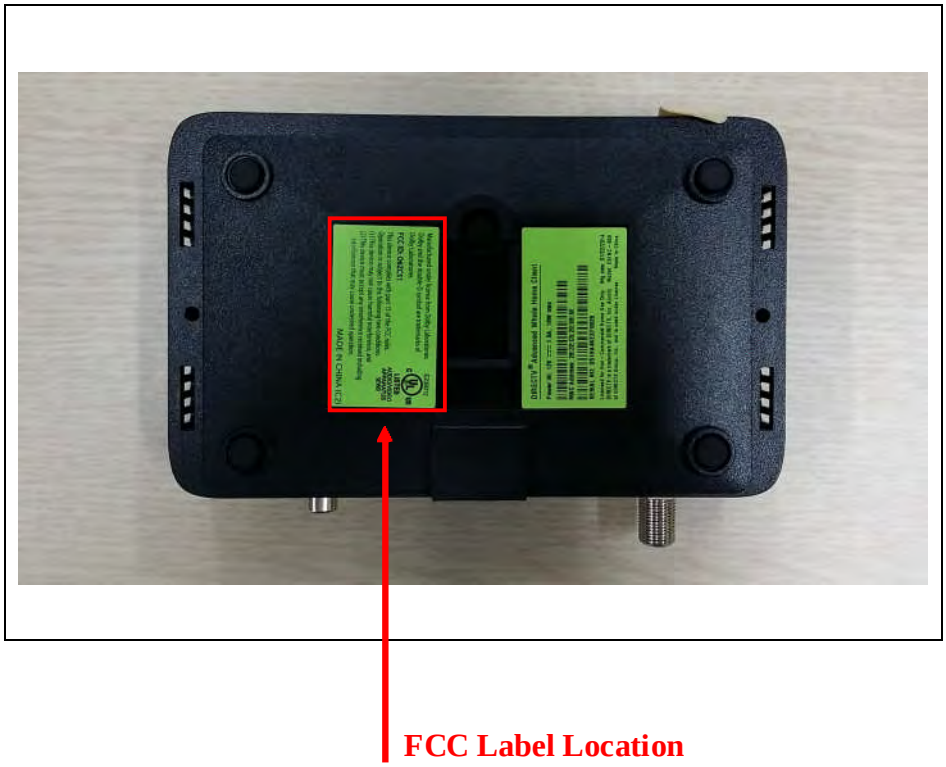
Left View

Right View

Top View

Bottom View

Label

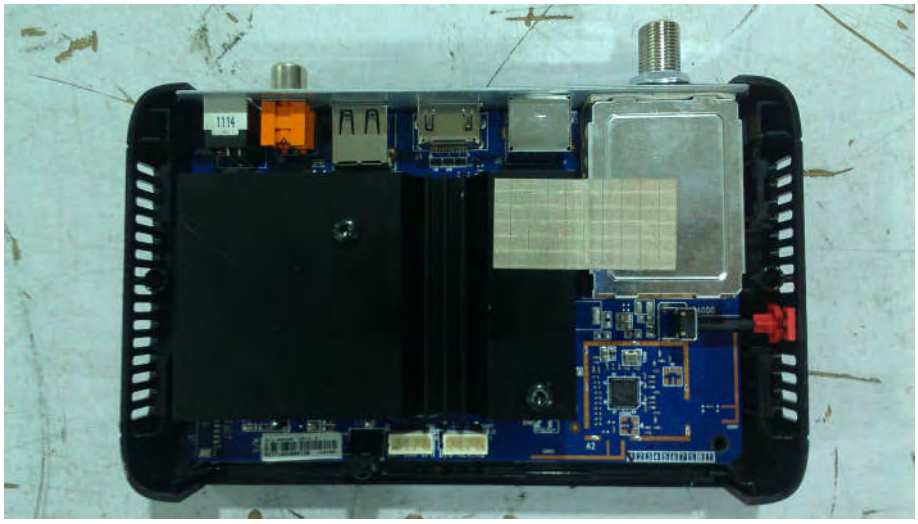


FCC Label Location

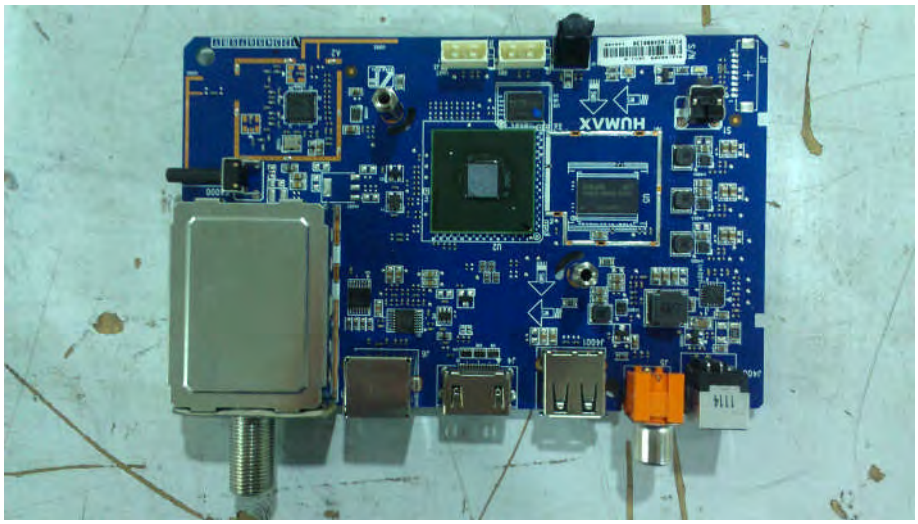
Client Receiver
C51-500

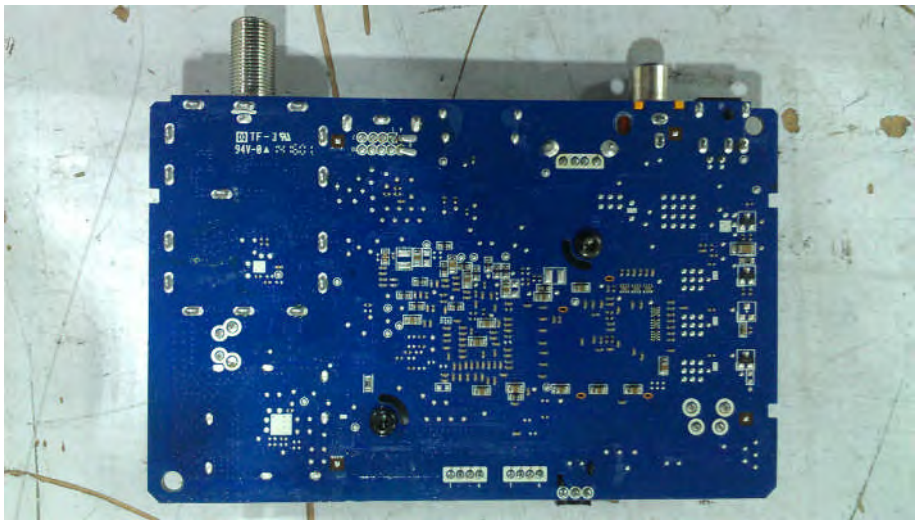
Port

Inside

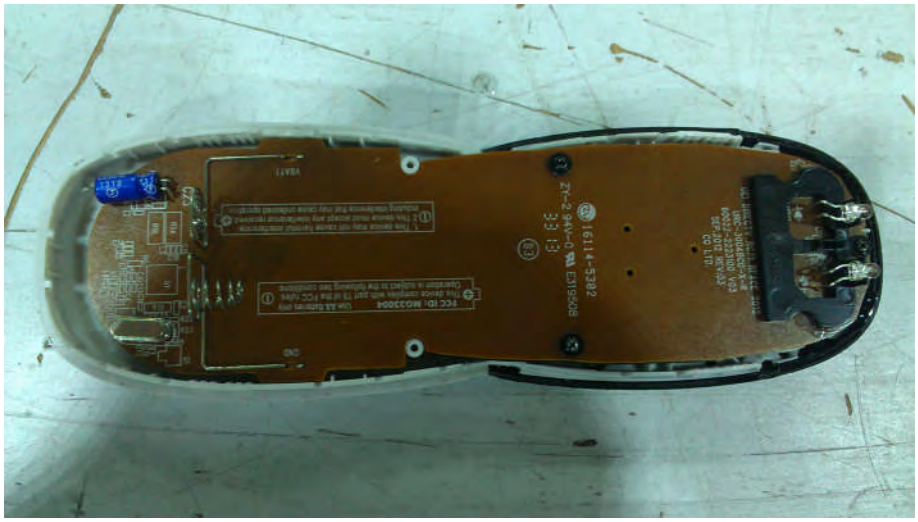


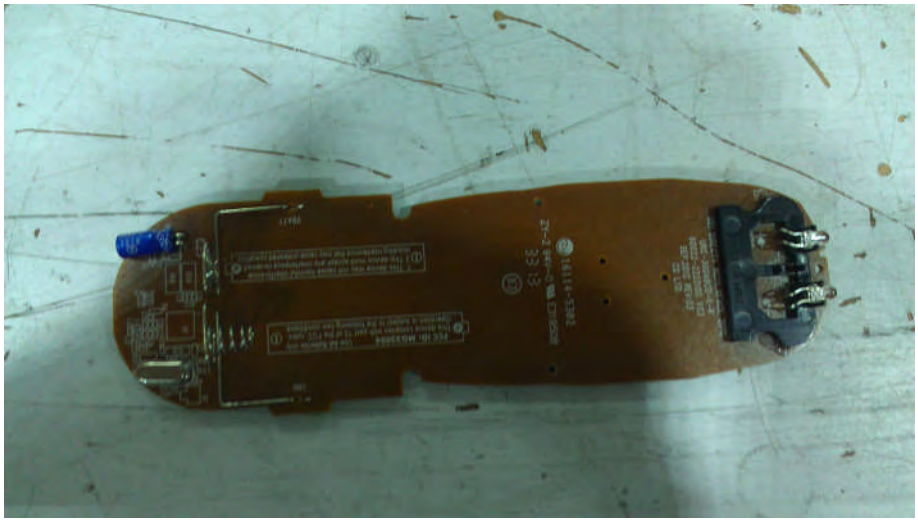
Main Board

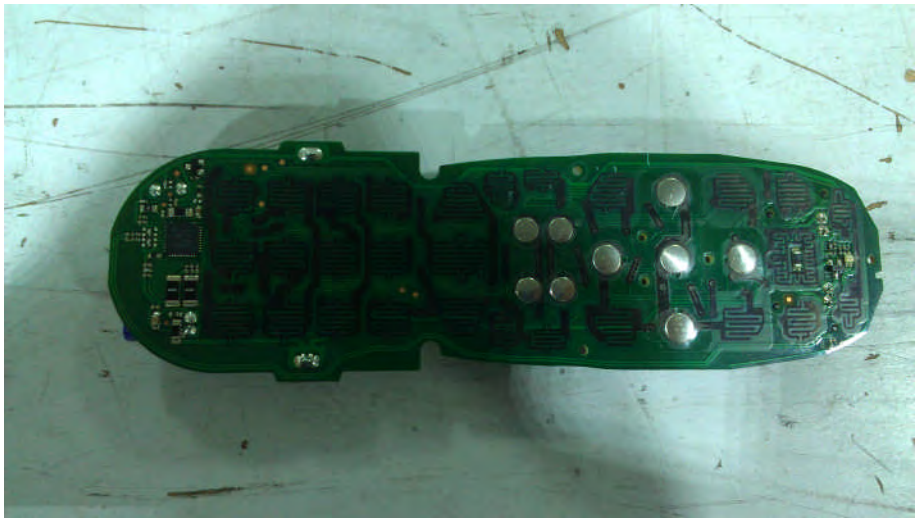




Remote Control

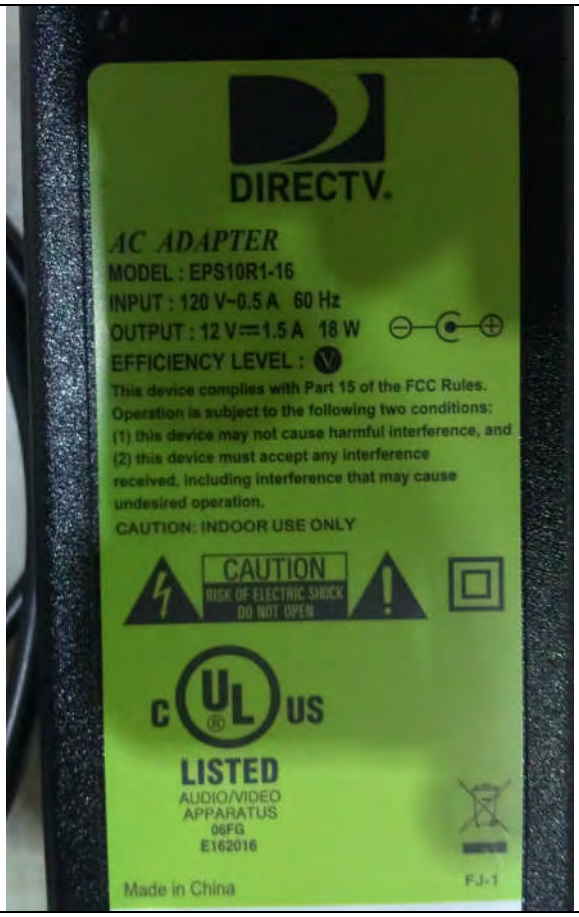






AC Adaptor#1

AC Adaptor#2



AC Adaptor#3

AC Adaptor#4