




# EMC TEST REPORT

Authorized under **Declaration of Conformity**

According to

**CISPR 13: 2009**

Applicant	: Channel Well Technology Co., Ltd.
Address	: No.222, Sec.2, Nankan Rd., Lujhu Township, Taoyuan Hsien, 33855 Taiwan
Manufacturer(1)	: Ningbo Iso Electronic Co., Ltd.
Address(1)	: 10, Chuange-ye Rd., The West of Ningbo Free Trade Zone Ningbo, Zhejiang P.R. China
Manufacturer(2)	: Channel Well Technology (Guangzhou) Co., Ltd.
Address(2)	: Bld. B, Eastern Hi-tech Industrial Base, Zengjiang Street, Zengcheng, Guangzhou, Guangdong Province China.
Equipment	: Power Supply
	: KPL-xy,x=048,066,y=F
Model No.	: KPL-xy-VI (x represents the output wattage; x = 040, 048, 050, 060, 065, 066. y represents the output voltage; y = F, G, V, H, I, W, J, K, L, N, Q, R, M, S)
Trade Mark	: 

## I HEREBY CERTIFY THAT :

The sample was received on Aug. 05, 2015 and the testing was carried out on Aug. 12, 2015 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:



Miro Chueh  
EMC/RF B.U. Manager



## Contents

<b>1. Summary of Test Procedure and Test Results .....</b>	<b>5</b>
1.1. Applicable Standards .....	5
<b>2. Test Configuration of Equipment under Test .....</b>	<b>6</b>
2.1. Feature of Equipment under Test.....	6
2.2. Test Manner .....	7
2.3. Description of Test System.....	7
2.4. Connection Diagram of Test System.....	8
2.5. General Information of Test.....	9
2.6. Measurement Uncertainty .....	10
<b>3. Test of Conducted Emission .....</b>	<b>11</b>
3.1. Test Procedures .....	11
3.2. Typical Test Setup .....	12
3.3. Measurement Equipment.....	12
3.4. Test Result and Data .....	13
3.5. Test Photographs of Power Port .....	18
<b>4. Test of Radiated Emission .....</b>	<b>19</b>
4.1. Test Limit .....	19
4.2. Test Procedures .....	19
4.3. Typical test Setup.....	20
4.4. Measurement Equipment.....	20
4.5. Test Result and Data (30MHz ~ 1GHz).....	21
4.6. Test Photographs (30MHz~1GHz).....	25
<b>5. Photographs of EUT .....</b>	<b>26</b>



# TEST REPORT

Issued by:

CerpPASS Technology (Suzhou) Co.,Ltd

No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China

Tel:86-512-6917-5888

Fax:86-512-6917-5666

The test record, data evaluation & Equipment. Under Test configurations represented herein are true and accurate accounts of the measurements of the samples EMC characteristics under the conditions specified in this report.

## Laboratory Accreditation:

☐ CerpPASS Technology Corporation Test Laboratory

<b>NVLAP LAB Code:</b>	<b>200954-0</b>
<b>TAF LAB Code:</b>	<b>1439</b>

☒ CerpPASS Technology(SuZhou) Co., Ltd.

<b>NVLAP LAB Code:</b>	<b>200814-0</b>
<b>CNAS LAB Code:</b>	<b>L5515</b>

**History of this test report**

☒ ORIGINAL.

☐ Additional attachment as following record:

Report No	Version	Date	Description
SEJV1507023	Rev 01	Aug 13,2015	Initial Issue



## 1. Summary of Test Procedure and Test Results

### 1.1.Applicable Standards

The measurements shown in this test report were made in accordance with the procedures given in **Implementation Regulation for the VOLUNTARY CONTROL of RADIO INTERFERENCE by DATA PROCESSING EQUIPMENT and ELECTRONIC OFFICE MACHINES.**

The energy emitted by this equipment was ***passed*** both Radiated and Conducted Emissions **Class B** limits.

Test Item	Normative References	Test Result	Remarks
Conducted Emission (Mains Ports)	CISPR13 : 2009	PASS	Meets Class B Limit Minimum passing margin(AV) is -15.45dB at 25.2580 MHz
Conducted Emission (Telecommunication Ports)	CISPR13 : 2009	N/A	N/A
Radiated Emission	CISPR13 : 2009	PASS	Meets Class B Limit Minimum passing margin(QP) is -6.65dB at 30.0000MHz



## 2. Test Configuration of Equipment under Test

### 2.1. Feature of Equipment under Test

<b>Product Name:</b>	Power Supply	
<b>Model Name:</b>	KPL-xy,x=048,066,y=F KPL-xy-VI (x represents the output wattage; x = 040, 048, 050, 060, 065, 066. y represents the output voltage; y = F, G, V, H, I, W, J, K, L, N, Q, R, M, S)	
<b>Model Discrepancy:</b>	Product output voltage, output current and the two side of the parts are rated different.	
<b>Housing material:</b>	Plastic case	
<b>Power Supply 1:</b>	Model No:	KPL-060I-VI
	Input AC	100 - 240V~ 50-60Hz 1.7A
	Output DC	+16 .0V – 3.75A 60W
<b>Power Supply 2:</b>	Model No:	KPL-066F-VI
	Input AC	100 - 240V~ 50-60Hz 1.7A
	Output DC	+12 .0V – 5050A 66W
<b>Power Supply 3:</b>	Model No:	KPL-065J-VI
	Input AC	100 - 240V~ 50-60Hz 1.7A
	Output DC	+18 .0V – 3.61A 65W
<b>Power Supply 4:</b>	Model No:	KPL-065M-VI
	Input AC	100 - 240V~ 50-60Hz 1.7A
	Output DC	+24 .0V – 2.71A 65W
<b>Power Supply 5:</b>	Model No:	KPL-065S-VI
	Input AC	100 - 240V~ 50-60Hz 1.7A
	Output DC	+48 .0V – 1.35A 65W
<b>DC Power Cable</b>	Non-shielded, 1.2m	



## 2.2. Test Manner

- a. During testing, the interface cables and equipment positions were varied according Standard CISPR 13.
- b. During the test, connect the Load, Meter and EUT, make the EUT at the test mode.
- c. The test modes as follow:

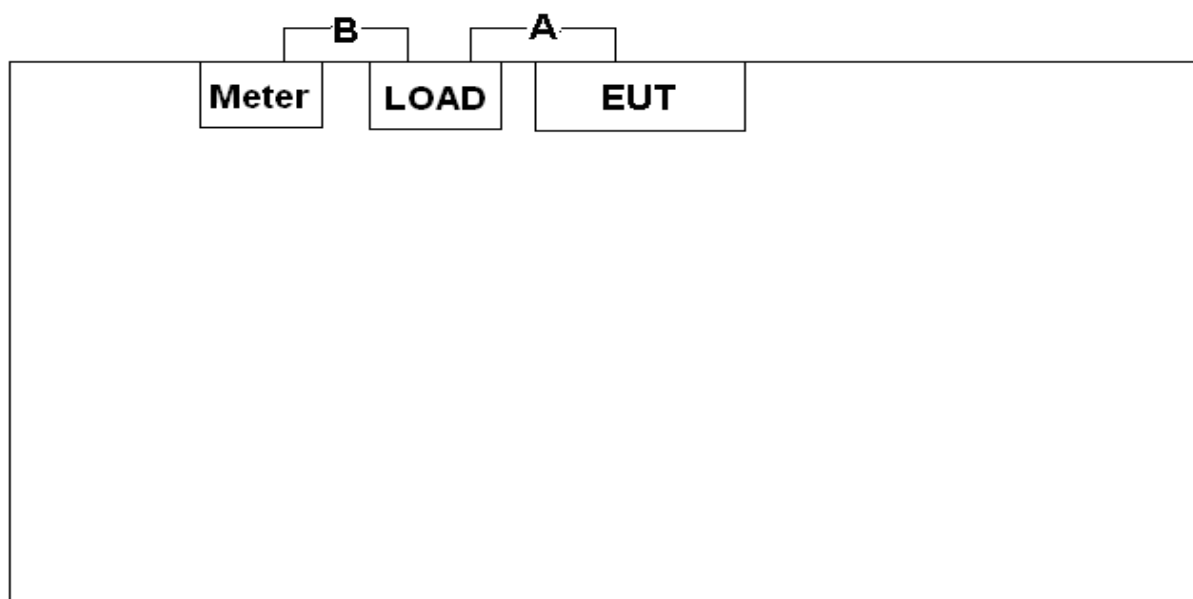
<b>Pre-Test Mode</b>
Mode 1: Full Load for KPL-060I-VI
Mode 2: Full Load for KPL-066F-VI
Mode 3: Full Load for KPL-065J-VI
Mode 4: Full Load for KPL-065M-VI
Mode 5: Full Load for KPL-065S-VI
Mode 6: Half Load for KPL-060I-VI
<b>The worse case was selected as the final test mode and record in the report</b>
Mode 1: Full Load for KPL-060I-VI
Mode 6: Half Load for KPL-060I-VI

## 2.3. Description of Test System

No	Device	Manufacturer	Model No.	Description
1	Load	N/A	N/A	N/A
2	Meter	FLUKE	N/A	N/A



## 2.4. Connection Diagram of Test System



### Use Cable

Item	Cable	Quantity	Description
A	DC Cable	1	Non-shielded, 1.2m
B	Meter Cable	2	Non-shielded, 1.2m



**2.5. General Information of Test**

<input type="checkbox"/>	Test Site	<b>Cerpass Technology Corporation Test Laboratory</b> Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881 Address: No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C. Tel: +886-2-2663-8582
	FCC	TW1079, TW1061,390316, 228391, 641184
	IC	4934B-1, 4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication Test C-4663 for Conducted emission test R-3428, R-4218 for Radiated emission test G-812, G-813 for radiated disturbance above 1GHz
<input checked="" type="checkbox"/>	Test Site	<b>Cerpass Technology (Suzhou) Co.,Ltd</b> Address: No.66,Tangzhuang Road, Suzhou Industrial Park, Jiangsu 215006, China Tel: +86-512-6917-5888 Fax: +86-512-6917-5666
	FCC	331395
	IC	7290A-1, 7290A-2
	VCCI	T-1945 for Telecommunication Test C-2919 for Conducted emission test R-2670 for Radiated emission test G-227 for radiated disturbance above 1GHz
Frequency Range Investigated:		Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 100MHz
Test Distance :		The test distance of radiated emission below 1GHz from antenna to EUT is 10 M. The test distance of radiated emission above 1GHz from antenna to EUT is 3 M.



## 2.6. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Test results and Measurement uncertainty without any relationship in the test report.

Measurement	Frequency	Uncertainty
Conducted emissions(LINE)	9KHz-30MHz	+/- 0.6888 dB
Conducted emissions(NEUTRAL)	9KHz-30MHz	+/- 0.7002 dB

Measurement	Polarity	Frequency	Uncertainty
Radiated emissions (below 1GHz)	H	30MHz ~ 200MHz	+/- 4.0677dB
		200MHz ~1000MHz	+/- 3.9131dB
	V	30MHz ~ 200MHz	+/- 4.0678dB
		200MHz ~1000MHz	+/- 3.9142dB
Radiated emissions (above 1GHz)	H	1000MHz ~18000MHz	+/- 3.8904 dB
		18000MHz ~40000MHz	+/-3.9356dB
	V	1000MHz ~18000MHz	+/- 3.8896dB
		18000MHz ~40000MHz	+/- 3.8766dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22: 2008, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.



### 3. Test of Conducted Emission

Limits of disturbance voltage at the mains terminals			
Equipment type	Frequency (MHz)	QP (dBuV)	AV (dBuV)
Television and sound receivers and associated equipment	0.15 - 0.50	66 - 56	56 - 46
	0.50 - 5.0	56	46
	5.0 - 30	60	50
Decreasing linearly with the logarithm of the frequency.			

#### 3.1. Test Procedures

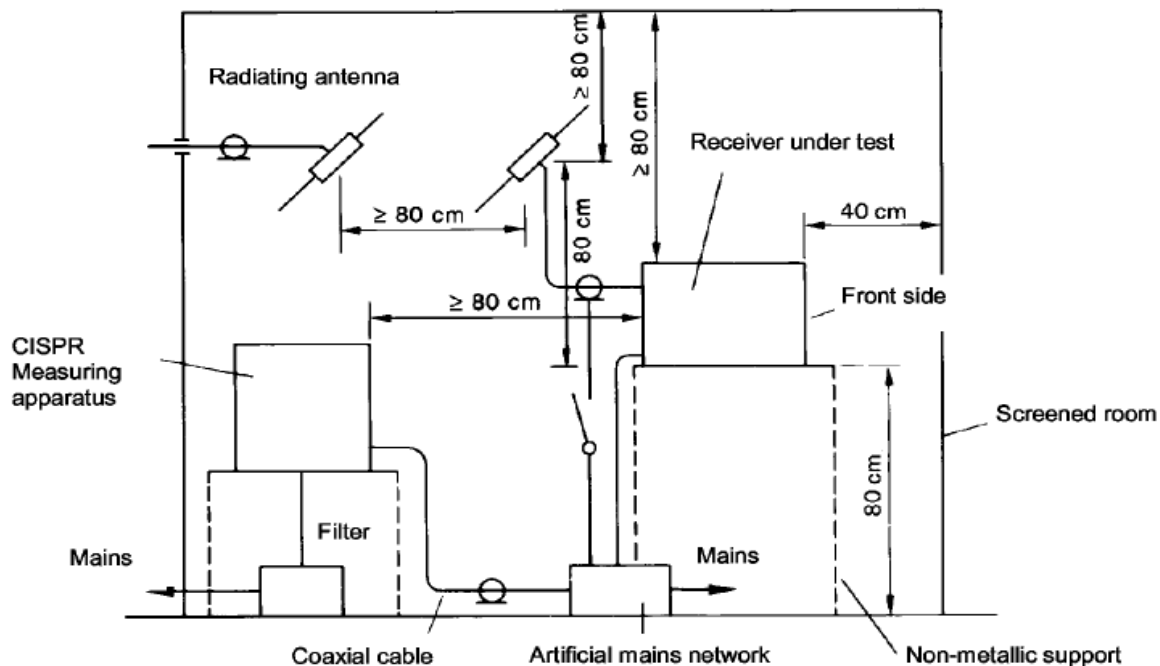
The EUT is connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs.)

In order to find the maximum emission, the relative positions of equipment and all of the interface cables are changed according to EN 55013 on conducted measurement.

Conducted emissions are investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.



### 3.2. Typical Test Setup



### 3.3. Measurement Equipment

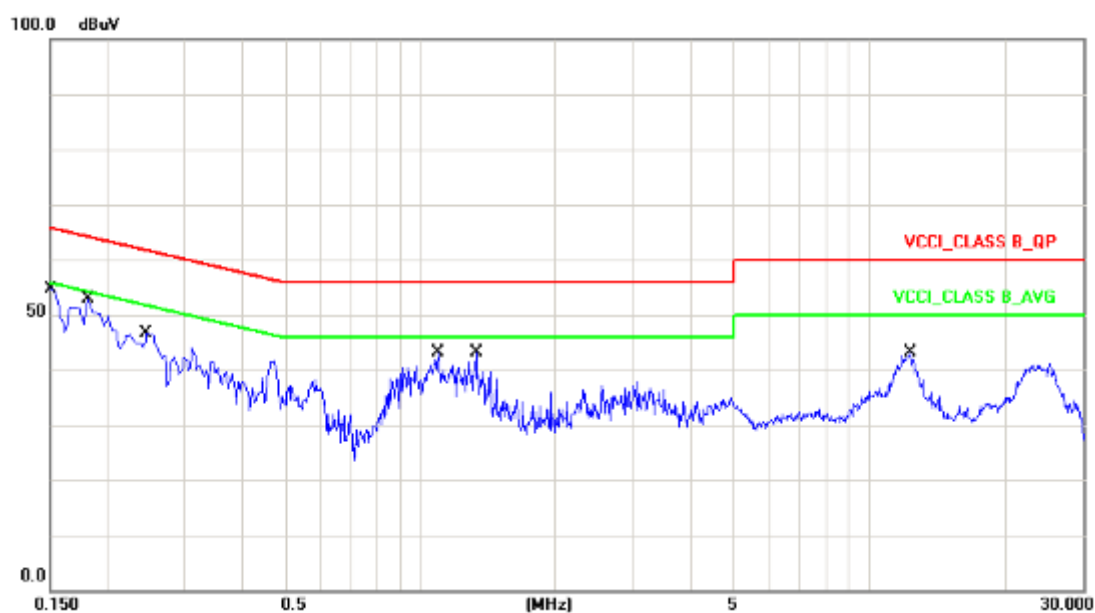
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Test Receiver	R&S	ESCI	100565	2015.03.29	2016.03.28
AMN	R&S	ESH2-Z5	100182	2014.09.04	2015.09.03
Two-Line V-Network	R&S	ENV216	100325	/	/
ISN	FCC	FCC-TLISN-T 2-02	20379	2015.03.29	2016.03.28
ISN	FCC	FCC-TLISN-T 4-02	20380	2015.03.29	2016.03.28
ISN	FCC	FCC-TLISN-T 8-02	20381	2015.03.29	2016.03.28
ISN	TESEQ	ISN ST08	30175	2015.03.29	2016.03.28
Current Probe	R&S	EZ-17	100303	2015.03.29	2016.03.28
Passive Voltage Probe	R&S	ESH2-Z3	100026	2015.03.29	2016.03.28
Pulse Limiter	R&S	ESH3-Z2	100529	2015.03.29	2016.03.28
Temperature/Humidity Meter	Zhicheng	ZC1-11	CEP-TH-004	2015.04.02	2016.04.01
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A



### 3.4. Test Result and Data

#### 3.4.1 Conducted Emission for Power Port Test Data

Test Mode :	Mode 1: Full Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Phase :	LINE
Temperature :	22 °C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/08/12

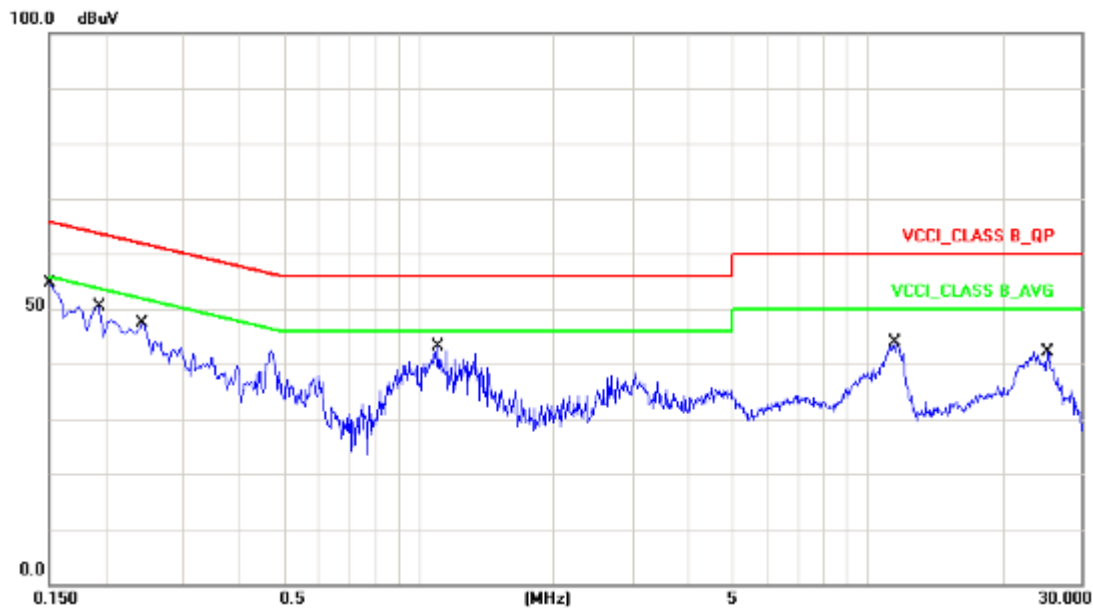


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1516	10.13	40.19	50.32	65.91	-15.59	QP
2	0.1516	10.13	28.87	39.00	55.91	-16.91	AVG
3	0.1819	10.12	36.85	46.97	64.39	-17.42	QP
4	0.1819	10.12	23.21	33.33	54.39	-21.06	AVG
5	0.2460	10.12	32.58	42.70	61.89	-19.19	QP
6	0.2460	10.12	20.14	30.26	51.89	-21.63	AVG
7	1.0940	10.16	26.62	36.78	56.00	-19.22	QP
8	1.0940	10.16	19.99	30.15	46.00	-15.85	AVG
9	1.3340	10.16	25.49	35.65	56.00	-20.35	QP
10	1.3340	10.16	14.01	24.17	46.00	-21.83	AVG
11	12.4220	10.38	26.14	36.52	60.00	-23.48	QP
12	12.4220	10.38	16.74	27.12	50.00	-22.88	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Full Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Phase :	NEUTRAL
Temperature :	22°C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/08/12

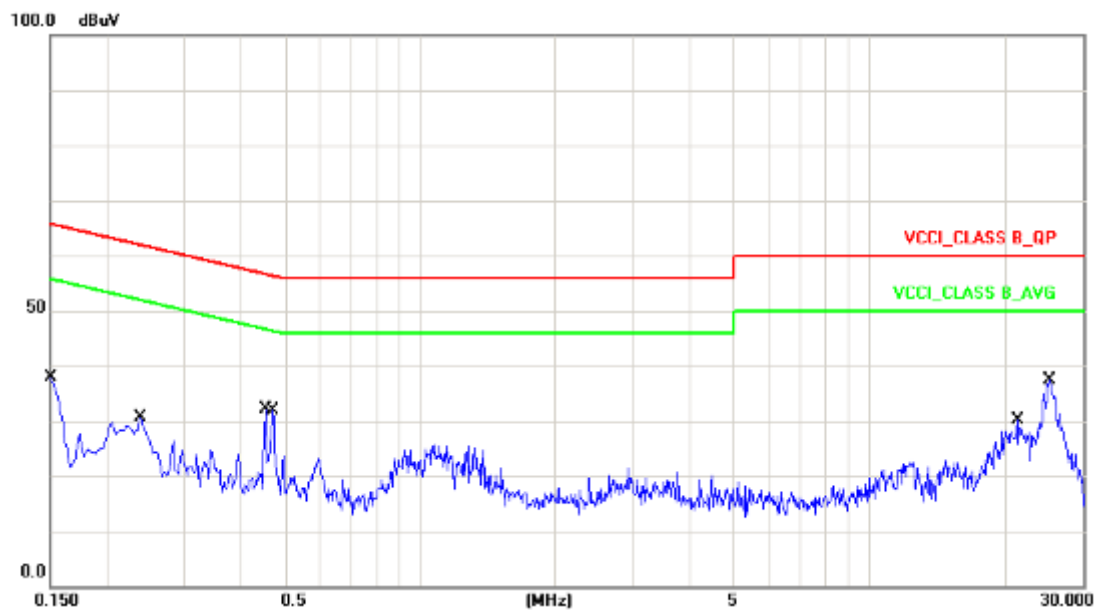


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	10.13	40.22	50.35	65.99	-15.64	QP
2	0.1500	10.13	28.54	38.67	55.99	-17.32	AVG
3	0.1940	10.13	33.51	43.64	63.86	-20.22	QP
4	0.1940	10.13	21.00	31.13	53.86	-22.73	AVG
5	0.2420	10.13	30.91	41.04	62.02	-20.98	QP
6	0.2420	10.13	18.08	28.21	52.02	-23.81	AVG
7	1.1100	10.18	25.69	35.87	56.00	-20.13	QP
8	1.1100	10.18	18.01	28.19	46.00	-17.81	AVG
9	11.5060	10.34	28.08	38.42	60.00	-21.58	QP
10	11.5060	10.34	19.14	29.48	50.00	-20.52	AVG
11	25.2580	10.35	27.54	37.89	60.00	-22.11	QP
12	25.2580	10.35	24.20	34.55	50.00	-15.45	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Half Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Phase :	LINE
Temperature :	22 °C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/08/12

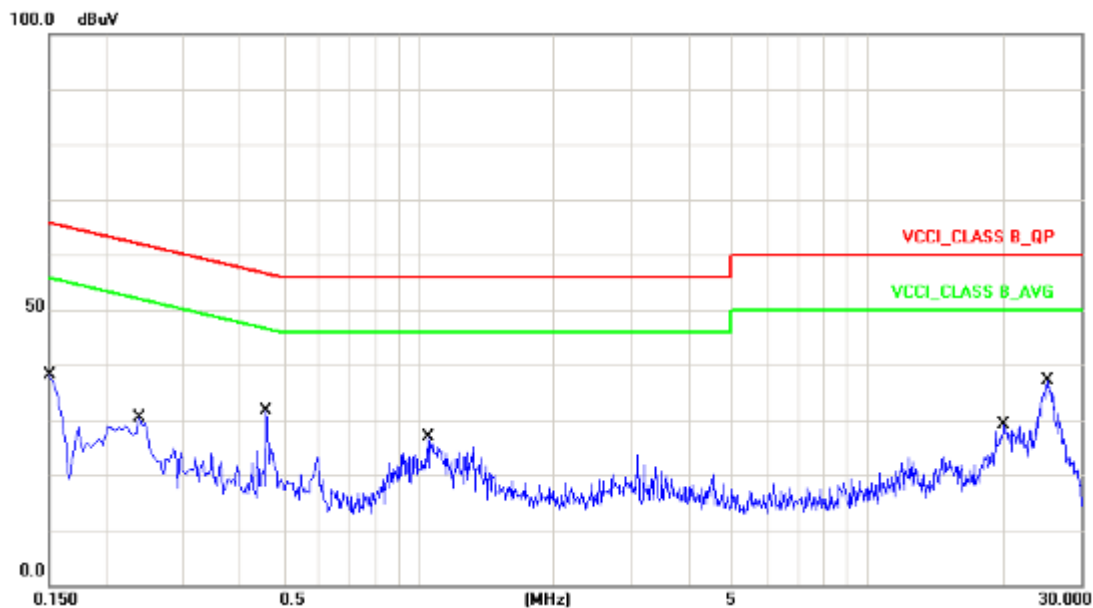


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	10.13	23.42	33.55	65.99	-32.44	QP
2	0.1500	10.13	12.10	22.23	55.99	-33.76	AVG
3	0.2380	10.12	13.52	23.64	62.16	-38.52	QP
4	0.2380	10.12	1.25	11.37	52.16	-40.79	AVG
5	0.4540	10.16	12.68	22.84	56.80	-33.96	QP
6	0.4540	10.16	-0.37	9.79	46.80	-37.01	AVG
7	0.4700	10.16	14.43	24.59	56.51	-31.92	QP
8	0.4700	10.16	2.82	12.98	46.51	-33.53	AVG
9	21.4140	10.37	6.15	16.52	60.00	-43.48	QP
10	21.4140	10.37	-4.68	5.69	50.00	-44.31	AVG
11	25.2500	10.43	24.87	35.30	60.00	-24.70	QP
12	25.2500	10.43	22.05	32.48	50.00	-17.52	AVG

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Half Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Phase :	NEUTRAL
Temperature :	22°C	Humidity :	50%
Pressure(mbar) :	1002	Date:	2015/08/12



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	10.13	23.11	33.24	65.99	-32.75	QP
2	0.1500	10.13	11.95	22.08	55.99	-33.91	AVG
3	0.2380	10.13	12.22	22.35	62.16	-39.81	QP
4	0.2380	10.13	1.15	11.28	52.16	-40.88	AVG
5	0.4580	10.15	13.77	23.92	56.73	-32.81	QP
6	0.4580	10.15	2.07	12.22	46.73	-34.51	AVG
7	1.0500	10.18	8.91	19.09	56.00	-36.91	QP
8	1.0500	10.18	2.23	12.41	46.00	-33.59	AVG
9	20.1860	10.44	6.89	17.33	60.00	-42.67	QP
10	20.1860	10.44	-5.62	4.82	50.00	-45.18	AVG
11	25.2540	10.35	25.20	35.55	60.00	-24.45	QP
12	25.2540	10.35	23.01	33.36	50.00	-16.64	AVG

Note: Measurement Level = Reading Level + Correct Factor

Test engineer: Seben





### **3.4.2 Conducted Emission for Telecommunication Port Test Data**

Note: The EUT doesn't have the telecommunication port.

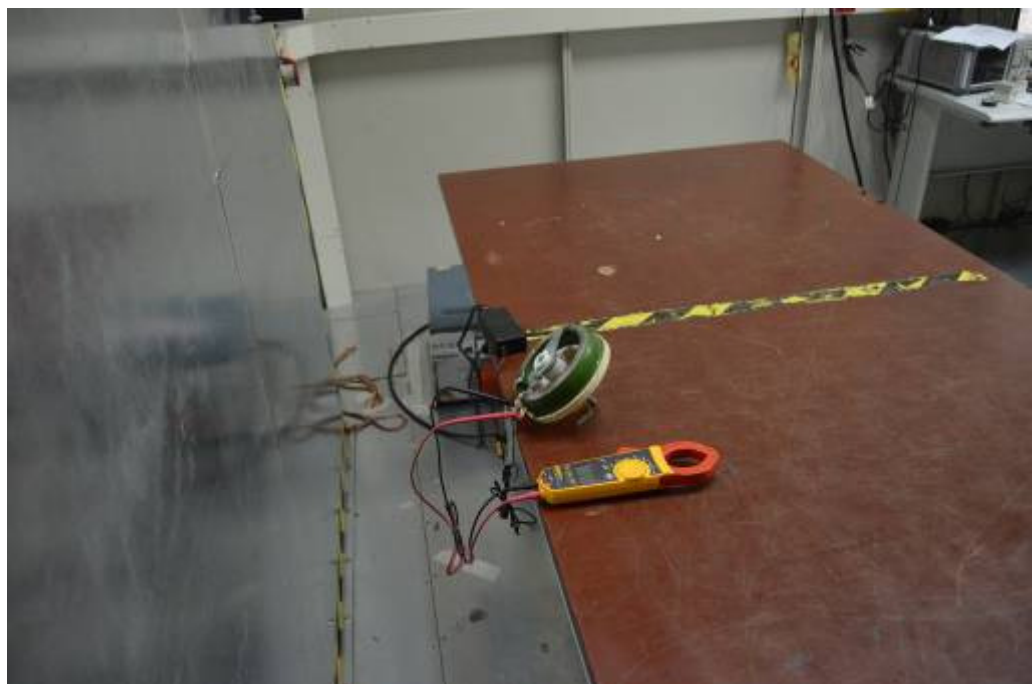


### 3.5. Test Photographs of Power Port

Front View



Rear View





## 4. Test of Radiated Emission

### 4.1. Test Limit

Table – Limits for Radiated disturbance at 3m distance

Equipment type	Source	Frequency (MHz)	Limit values dB(μV/m) Quasi-peak
Television receivers, video recorders and PC tuner cards	Local oscillator	≤ 1000	Fundamental 57 (1)
	Other	30 to 300	Harmonics 52
		300 to 1000	Harmonics 56
		30 to 230	40
		230 to 1000	47
Television and sound receivers for broadcast satellite transmissions (except outdoor units),  Infrared remote control units and  Infrared headphone systems	Other	30 to 230	40
		230 to 1000	47
Frequency modulation sound receivers and PC tuner cards	Local-oscillator	≤ 1000	Fundamental 60
	Other	30 to 300	Harmonics 52
		300 to 1000	Harmonics 56
		30 to 230	40
		230 to 1000	47
NOTE1: In Japan: 57 dB(μV/m) is relaxed to 66 dB(μV/m) for operating channels <300 MHz and to 70 dB(μV/m) for operating channels >300 MHz.			
NOTE2: For AM broadcast receivers for LW, MW and SW no limits apply.			

### 4.2. Test Procedures

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.

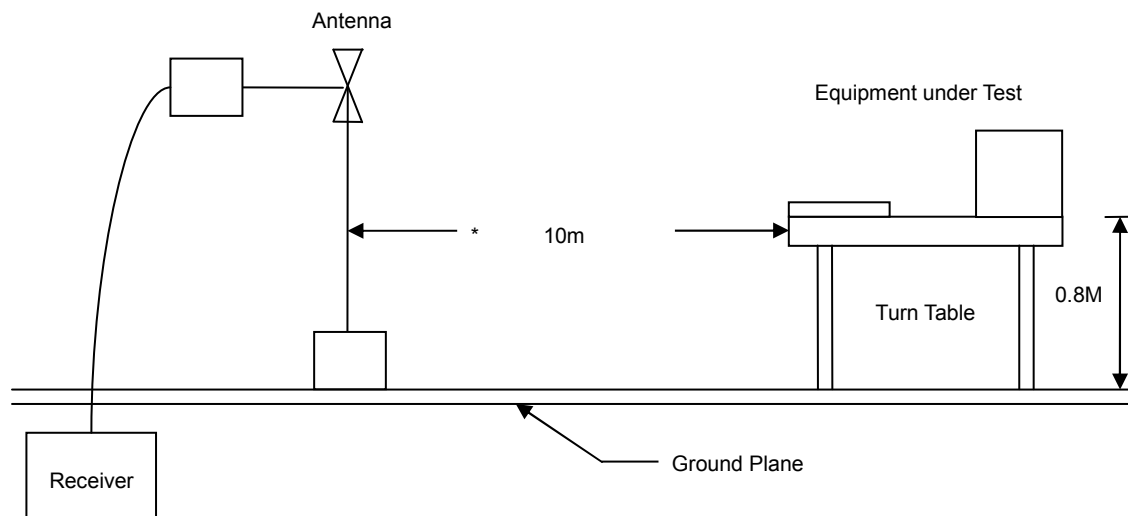
The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal



polarization, to maximize the emission reading level.

Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.

### 4.3. Typical test Setup



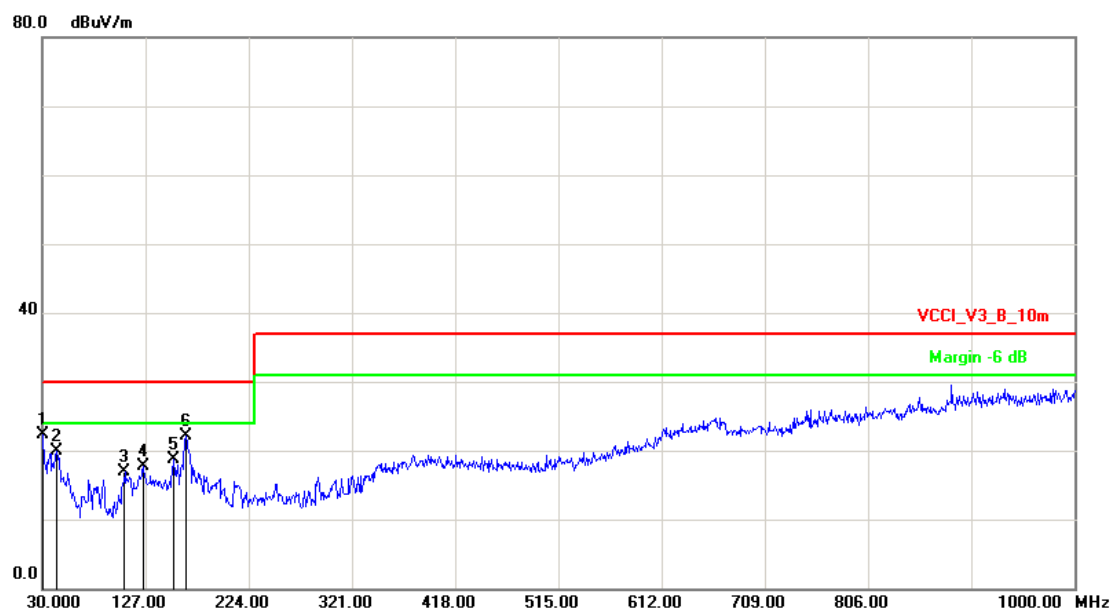
### 4.4. Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date.
EMI Test Receiver	R&S	ESC17	100968	2015.03.29	2016.03.28
Preamplifier	Agilent	87405B	My39500554	2015.03.29	2016.03.28
Preamplifier	Agilent	8449B	3008A02342	2015.03.29	2016.03.28
Bilog Antenna	Sunol Science	JB1	A072414-1	2015.04.22	2016.04.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-619	2015.04.20	2016.04.19
Spectrum Analyzer	R&S	FSP40	100324	2015.03.29	2016.03.28
Temperature/ Humidity Meter	Zhicheng	ZC1-11	CEP-TH-001	2015.04.02	2016.04.01
EZ-EMC	Fala	Ver CT3A1	N/A	N/A	N/A



#### 4.5. Test Result and Data (30MHz ~ 1GHz)

Test Mode :	Mode 1: Full Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Ant. Polarization:	Horizontal
Temp :	23℃	Humidity :	52%
Pressure(mbar) :	1002	Date :	2015/08/12

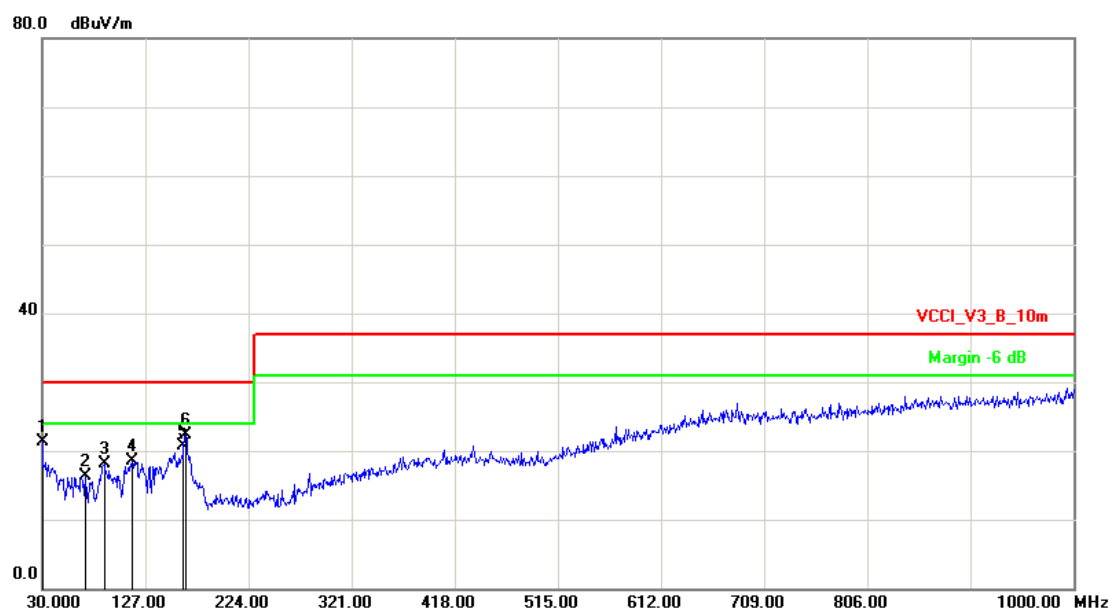


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9697	-5.75	27.98	22.23	30.00	-7.77	peak	400	55
2	43.5799	-9.23	29.09	19.86	30.00	-10.14	peak	100	215
3	107.5999	-11.66	28.61	16.95	30.00	-13.05	peak	400	220
4	125.0600	-9.82	27.49	17.67	30.00	-12.33	peak	300	156
5	153.1896	-10.92	29.56	18.64	30.00	-11.36	peak	400	227
6	164.8300	-11.76	33.86	22.10	30.00	-7.90	peak	400	36

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 1: Full Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Ant. Polarization:	Vertical
Temp :	23℃	Humidity :	52%
Pressure(mbar) :	1002	Date :	2015/08/12

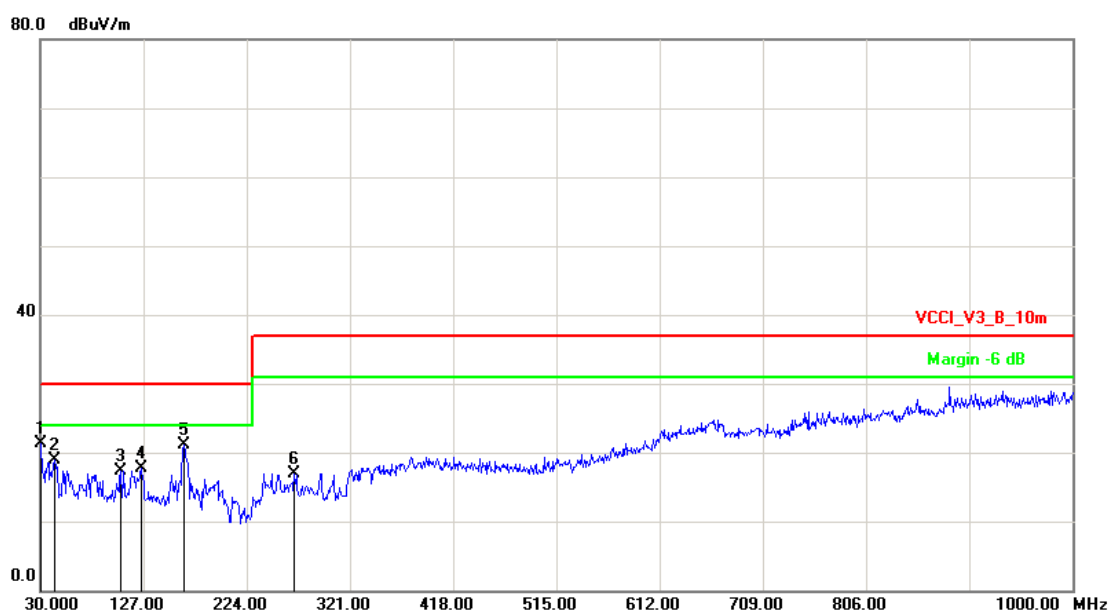


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.0000	-5.48	26.83	21.35	30.00	-8.65	peak	100	55
2	70.7399	-15.68	31.90	16.22	30.00	-13.78	peak	100	156
3	88.2000	-15.37	33.54	18.17	30.00	-11.83	peak	400	221
4	114.3900	-10.65	29.21	18.56	30.00	-11.44	peak	200	258
5	162.8899	-11.65	32.31	20.66	30.00	-9.34	peak	100	41
6	164.8300	-11.76	33.97	22.21	30.00	-7.79	peak	100	22

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Half Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Ant. Polarization:	Horizontal
Temp :	23℃	Humidity :	52%
Pressure(mbar) :	1002	Date :	2015/08/12

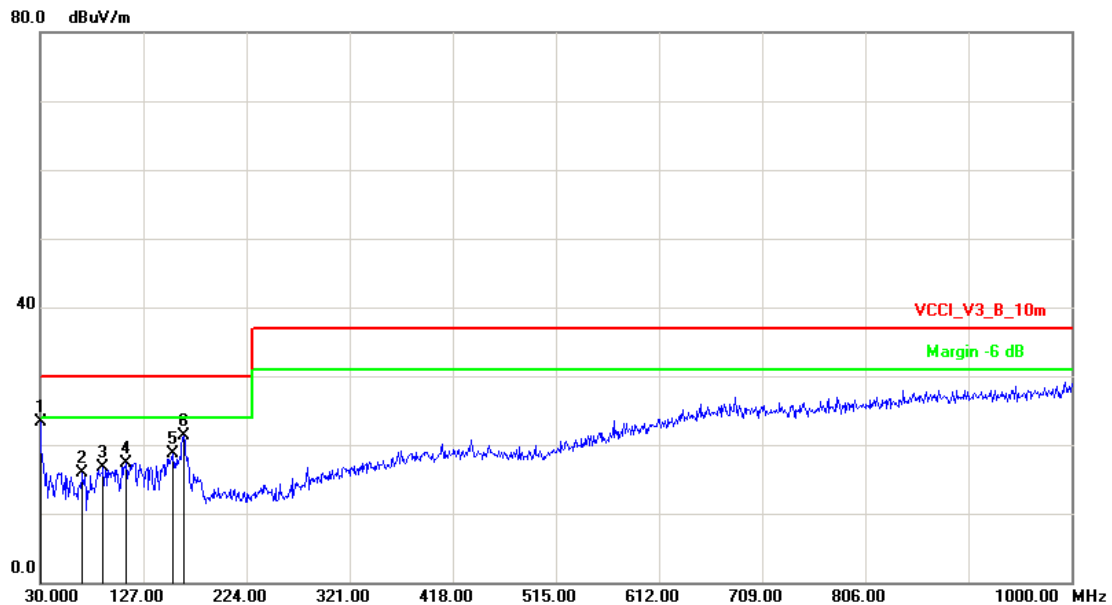


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.9696	-5.75	26.98	21.23	30.00	-8.77	peak	400	33
2	43.5799	-9.23	28.09	18.86	30.00	-11.14	peak	100	229
3	105.6598	-11.95	29.33	17.38	30.00	-12.62	peak	400	254
4	125.0600	-9.82	27.49	17.67	30.00	-12.33	peak	400	15
5	164.8300	-11.76	32.86	21.10	30.00	-8.90	peak	100	126
6	268.6200	-11.20	28.07	16.87	37.00	-20.13	peak	400	212

Note: Measurement Level = Reading Level + Correct Factor



Test Mode :	Mode 6: Half Load for KPL-060I-VI		
AC Power :	AC 100V/50Hz	Ant. Polarization:	Vertical
Temp :	23℃	Humidity :	52%
Pressure(mbar) :	1002	Date :	2015/08/12



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	30.0000	-5.48	28.83	23.35	30.00	-6.65	peak	400	5
2	69.7699	-15.58	31.54	15.96	30.00	-14.04	peak	100	212
3	89.1700	-15.29	32.00	16.71	30.00	-13.29	peak	200	330
4	110.5100	-11.23	28.48	17.25	30.00	-12.75	peak	100	285
5	155.1297	-11.08	29.78	18.70	30.00	-11.30	peak	100	229
6	164.8300	-11.76	32.97	21.21	30.00	-8.79	peak	100	61

Note: Measurement Level = Reading Level + Correct Factor





#### 4.6. Test Photographs (30MHz~1GHz)

Front View



Rear View



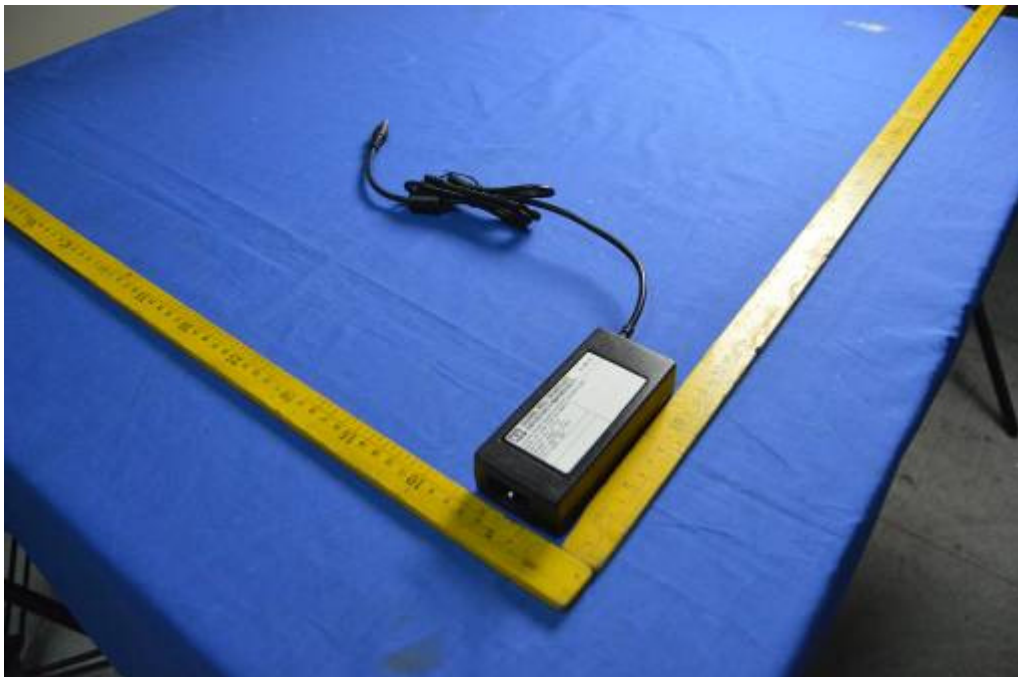


## 5. Photographs of EUT

### 1) EUT Photo(KPL-060I-VI)

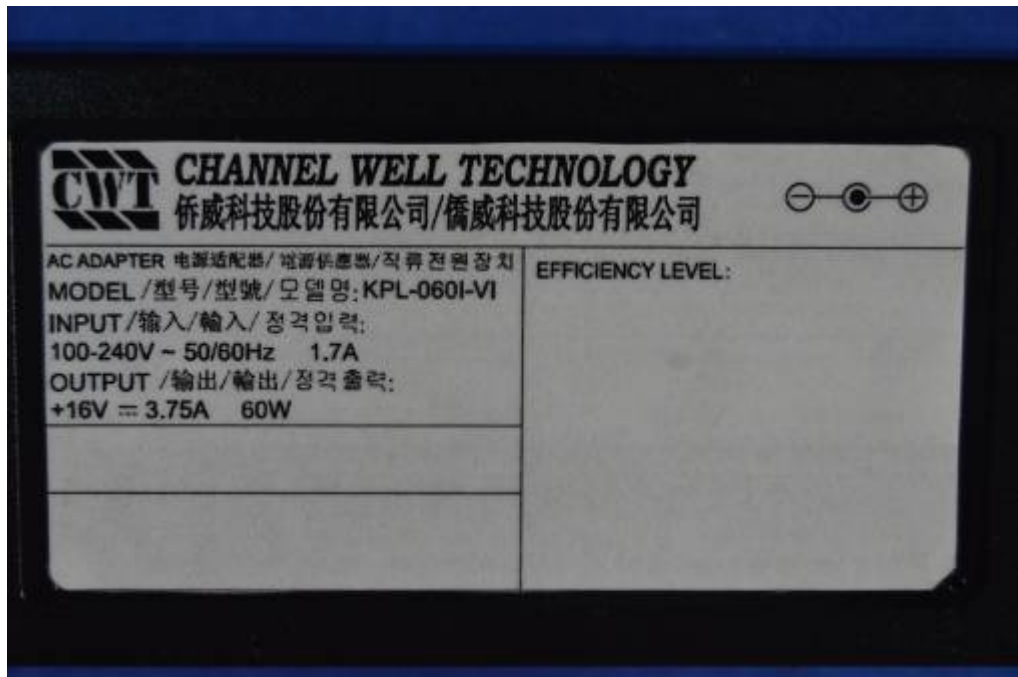


### 2) EUT Photo





3) EUT Photo



4) EUT Photo





5) EUT Photo



6) EUT Photo







7) EUT Photo

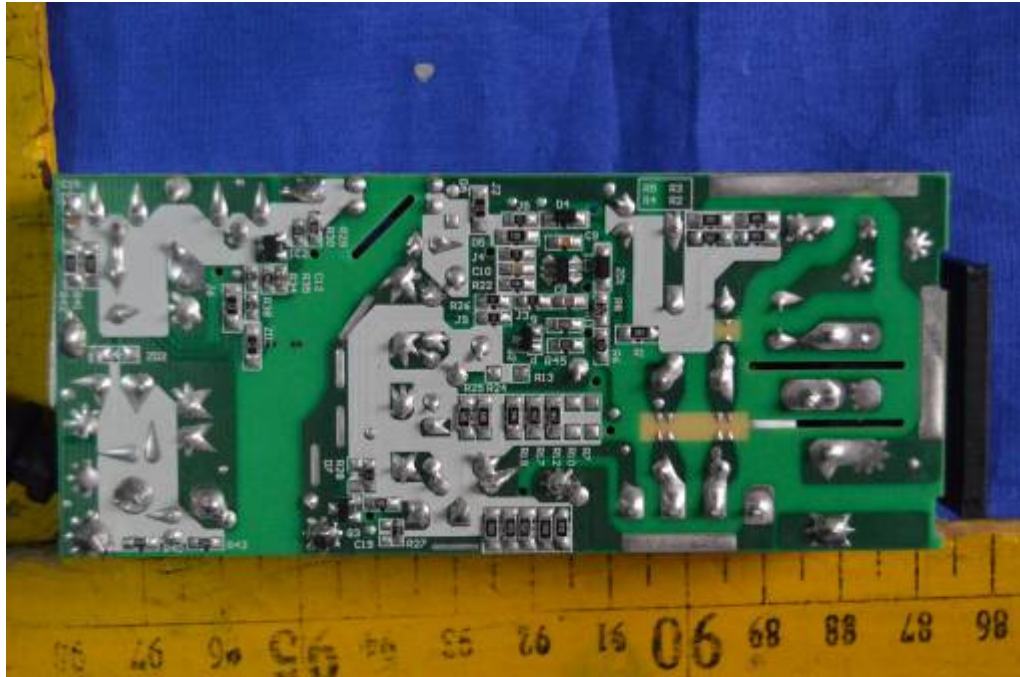


8) EUT Photo





9) EUT Photo



10) EUT Photo(KPL-066F-VI)



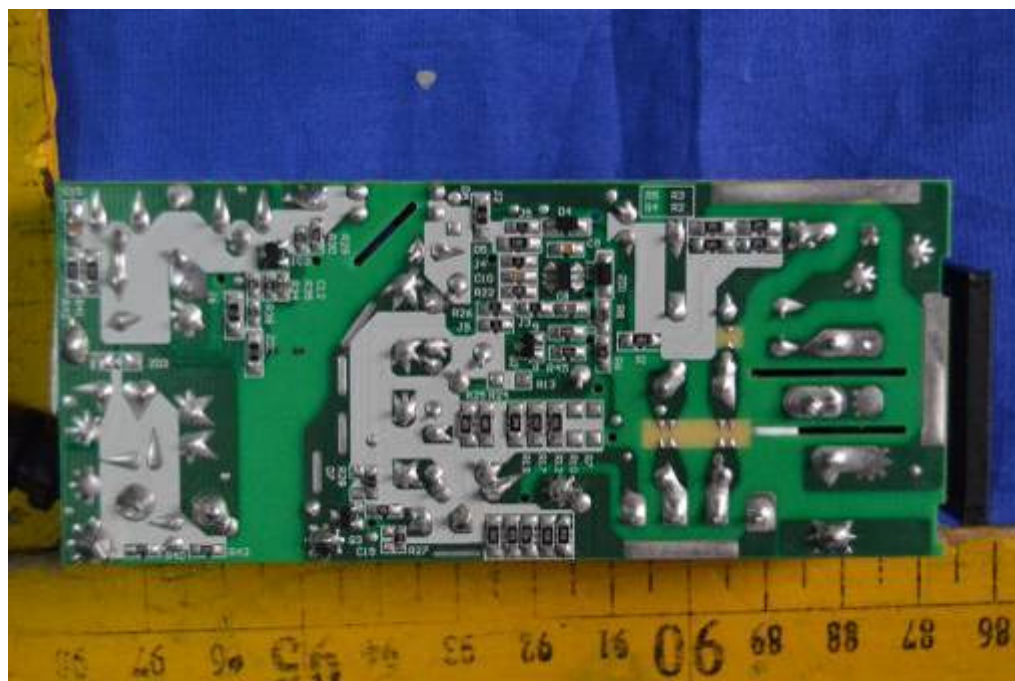




11) EUT Photo(KPL-066F-VI)



12) EUT Photo(KPL-066F-VI)





13) EUT Photo(KPL-065J-VI)



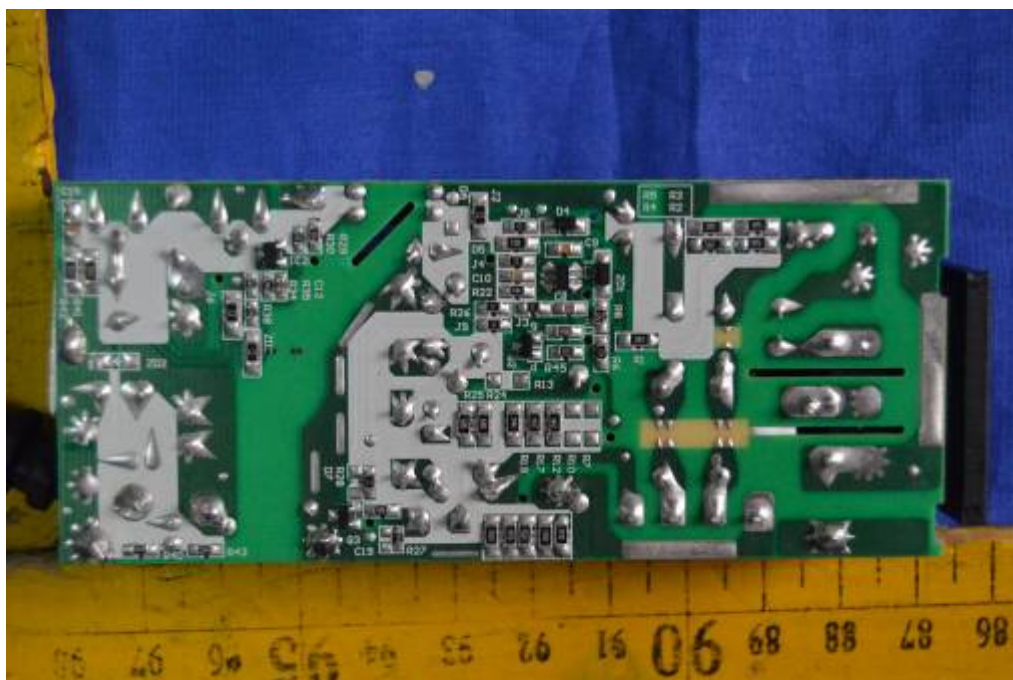
14) EUT Photo







15) EUT Photo



16) EUT Photo(KPL-065M-VI)

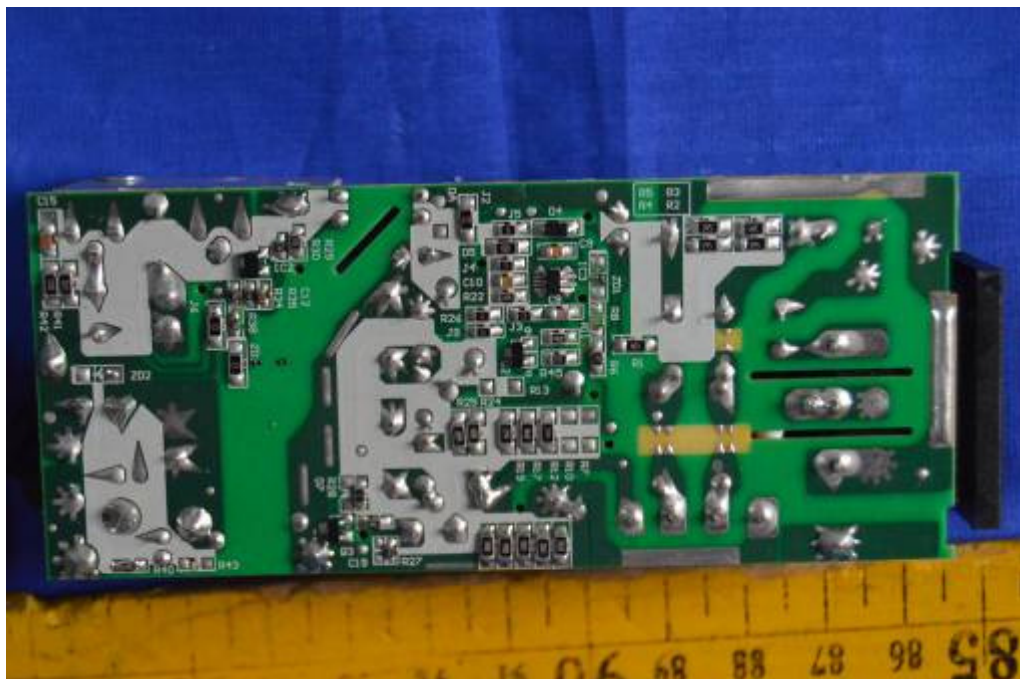




17) EUT Photo



18) EUT Photo





19) EUT Photo(KPL-065S-VI)



20) EUT Photo







21) EUT Photo

