

TEST REPORT

Applicant:	Xiamen Innov Electronics Tech Co., Ltd.	
Address:	1F/3F-5F, BLDG 5 NO.943, Tonglong 2nd Rd,Torch Hi-tech Industrial Zone(Xiang'an), Xiamen, China	
Manufacturer:	Xiamen Innov Electronics Tech Co., Ltd.	
Address:	1F/3F-5F, BLDG 5 NO.943, Tonglong 2nd Rd,Torch Hi-tech Industrial Zone(Xiang'an), Xiamen, China	
Factory:	Xiamen Innov Electronics Tech Co., Ltd.	
Address:	1F/3F-5F, BLDG 5 NO.943, Tonglong 2nd Rd,Torch Hi-tech Industrial Zone(Xiang'an), Xiamen, China	
E.U.T.:	Class 2 Power Supply	
Model Number:	IVPxxxx-yyyzz(xxxx, yyyy and z are variables, refer to report section 1.2 for details.)	
Trade Name:		
Date of Receipt:	May 20, 2021	Date of Test: May 20-June 2 , 2021
Test Specification:	47 CFR FCC Part 15, Subpart B, Class B 2019	
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied.	
Prepared by:	Approved & Authorized Signer:	
 Jerry Hu/Engineer		 Chunhui Yang/ Manager
		Issue Date: June 25, 2021
This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Dongguan Lepont Service Co., Ltd.		

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1. GENERAL PRODUCT INFORMATION

1.1. PRODUCT FUNCTION

Refer to Technical Construction Form and User Manual.

1.2. DIFFERENCE BETWEEN MODEL NUMBERS

Model list:

Model	Input	Output			Transformer no.
		Voltage (Vdc)	Current (A)	Power (Max. W)	
IVPxxxx-yyyzy	100-240V~, 50/60Hz, 0.5A	5.0-11.9	0.1-2.5	18.0	Type: 0201-0520 Secondary winding: Ø 0.45mm *2, 6Ts
		12.0-30.0	0.1-1.5	18.0	Type:0201-0519 secondary winding: Ø 0.55mm *1, 10Ts

Definition of variables:

Variable:	Range of variable:	Content:
For model: IVPxxxx-yyyzy		
xxxx	0500-3000	4 digits number which represents the output voltage in volt after dividing by 100 in a step of 0.1V, for example, 0500 represents the output voltage is 5.0V, 3000 represents the output voltage is 30.0V.
yyyy	0100-2500	4 digits number which represents the output current in ampere after dividing by 1000 in a step of 0.01A, for example, 0100 represents the output current is 0.1A, 2500 represents the output current is 2.5A.
z	W, D or Blank	Represents the external enclosure type D means horizontal enclosure type with LED lamp. W means horizontal enclosure type. Blank means vertical enclosure type

Model differences:

- For some components are optional: D7, D7A (D7, D7A must have one), LF1, LF3, VZ1 reference circuit schematics.
- R4, R4A, R4B, R10, R11, R21: The parameter of these components depends on output voltage and output current.
- Combination of Input connection, enclosure and PCB Layout as listed below, used as below. Please see photo documents for more details:

Model	Enclosure type	Primary L/N to PCB methods	PCB Layout
IVPxxxx-yyyzyW IVPxxxx-yyyzyD	Horizontal type A	Spring	PCB-T487-Q PCB-T487-S
IVPxxxx-yyyzy	Vertical type B	Primary lead wire or Spring	PCB-T484-I

Note: The PCB layout PCB-T487-Q is identical to the PCB-T487-S except for secondary circuit: PCB-T487-S with LED indicator circuit, PCB-T487-Q without LED indicator circuit. There is a same circuit for the PCB board PCB-T484-I and PCB-T487-Q.

All the models have the same primary circuit, except for the secondary circuit, enclosure type, secondary winding of Transformer and some components rating.

Notes: According to the above information, full tests were performed on model:

IVP0720-2500(PCB-T484-I), IVP0720-2500W(PCB-T487-Q),
IVP0720-2500D(PCB-T487-S), IVP3000-0600(PCB-T484-I),
IVP3000-0600W(PCB-T487-Q), IVP3000-0600D(PCB-T487-S)

1.3. TEST DESCRIPTION OF DEVICE (EUT)

Test Model : Refer to section 1.2
Test Sample No. : LP21020127C01-S001-S006
Rated Input : 100-240VAC~ 50/60Hz, 0.5A
Rated Output : 7.2V==2.5A, 30.0V==0.6A
DC Line : Unshielded, Undetachable, Shorter than 3m
Protection class : Class II
Operation Frequency : Below 108MHz (Declaration by applicant)

1.4. INDEPENDENT OPERATION MODES

Test Voltage: AC 120V/60 Hz
Test Mode :A Full Load
Test Mode :B Half Load
Test Mode :C Empty Load

Remark : The test data of the worst case condition(s) was reported on the following page.

2. TEST STANDARDS AND SITES

2.1. DESCRIPTION OF STANDARDS AND RESULTS

The EUT have been tested according to the applicable standards as referenced below.

EMISSION			
Standard	Test Type	Result	Remarks
47 CFR FCC Part 15, Subpart B, Class B 2019	Mains Terminal Disturbance Voltage Test	PASS	Meets the requirements.
	Radiated Emission Test	PASS	Meets the requirements.

2.2. LIST OF TEST AND MEASUREMENT INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
For conducted emission at the mains terminals test					
EMI Test Receiver	Rohde & Schwarz	ESCS30	1002.4500	Mar. 06, 2021	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	100873	Mar. 07, 2021	1 Year
For radiated (Below 1G) emission test					
EMI Test Receiver	Rohde & Schwarz	ESR	101849	Mar. 07, 2021	1 Year
Bilog Antenna	Schwarzbeck	VULB 9163	743	Jan. 18, 2020	3 Year
Signal Amplifier	HP	8447D	1726A01222	Mar. 07, 2021	1 Year
966 Chamber 1	MR	MR-L02	LEP-E051	Nov. 26, 2019	3 Year

2.3. MEASUREMENT UNCERTAINTY

Parameter		UNCERTAINTY
Conducted Emission	Level accuracy (150kHz to 30MHz)	± 2.54 dB
Radiated Emission	Level accuracy (30MHz to 1000MHz, V)	± 4.14 dB
	(30MHz to 1000MHz, H)	± 4.25 dB
Radiated Emission	Level accuracy (above 1000MHz, Horizontal)	± 3.92 dB
	(above 1000MHz, Vertical)	± 3.96 dB
Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus. The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. As U_{lab} in all applicable tests listed above are less than U_{CISPR} according to CISPR 16-4-2:2003, - compliance is deemed to occur if no measured disturbance exceeds the disturbance limit; - non-compliance is deemed to occur if any measured disturbance exceeds the disturbance limit.		

2.4. TEST FACILITY

EMC Lab. : The Laboratory has been assessed and proved to be in compliance with CNAS/CL01
The Certificate Registration Number is L10100.

Test Location (Others) : Dongguan Lepont Testing Service Co., Ltd.

Address : Room 102, Building 11, No.7, Houjie Science And Technology Avenue, Houjie, Dongguan, Guangdong, China

3. TEST SET-UP AND OPERATION MODES

3.1. PRINCIPLE OF CONFIGURATION SELECTION

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

Immunity: The equipment under test (EUT) was configured to the representative operating mode and conditions.

3.2. BLOCK DIAGRAM OF TEST SET-UP

System Diagram of Connections Between EUT and Simulators



3.3. SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT

None.

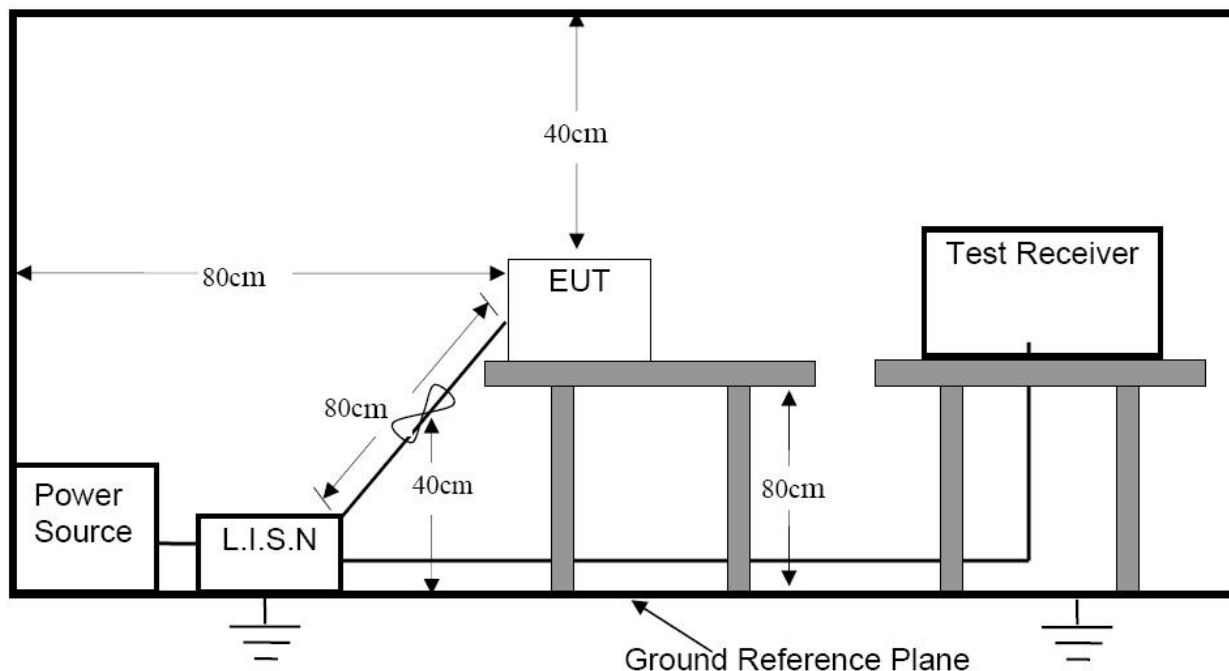
3.4. COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE

None.

4. EMISSION TEST RESULTS

4.1. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

4.1.1. Block Diagram of Test Setup



4.1.2. Limit

Limits for conducted disturbance at the mains ports of ITE.

Frequency range (MHz)	Limits (dB(uV))	
	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 to 30	60	50

- Note:
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

4.1.3. Test Procedure

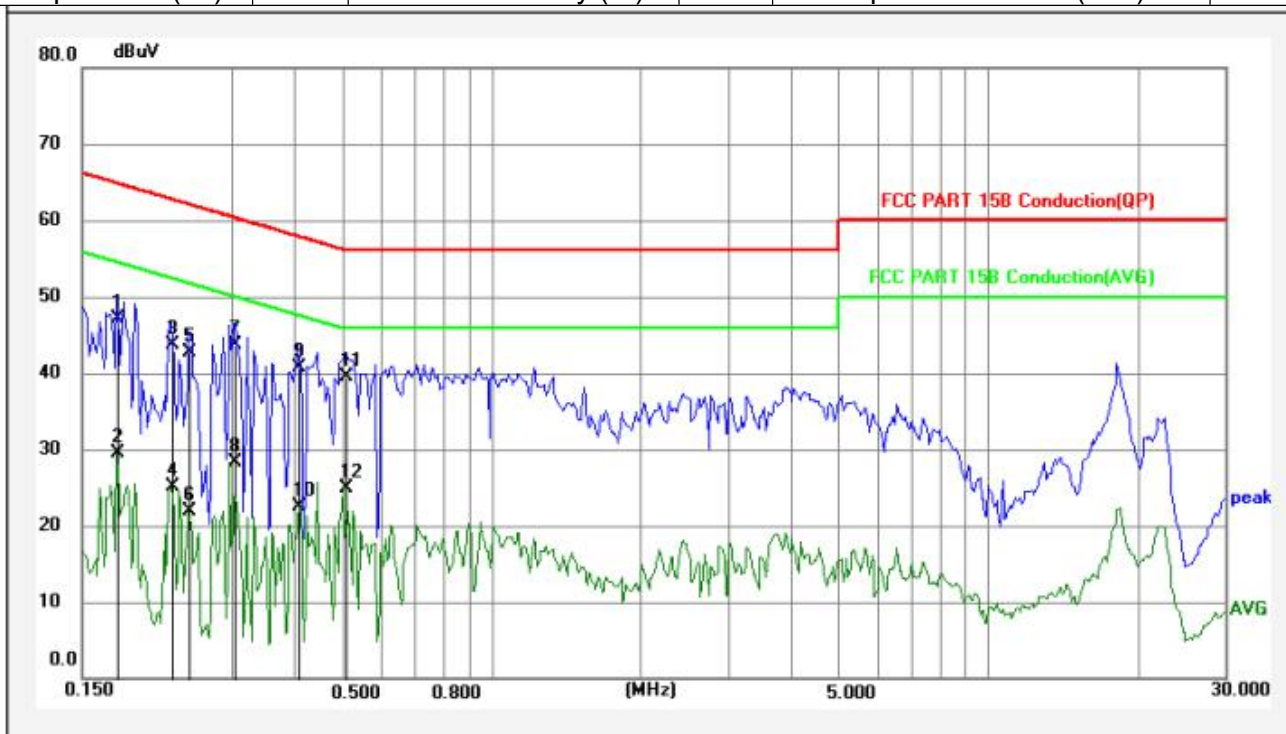
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The test results of conducted emissions at mains ports are recorded of six worst margins for quasi-peak(mandatory) [and average (if necessary)] values against the limits at frequencies of interest unless the margin is 20 dB or greater.
Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.1.4. Test Results

PASS.

Please refer to the following pages of the worst case:

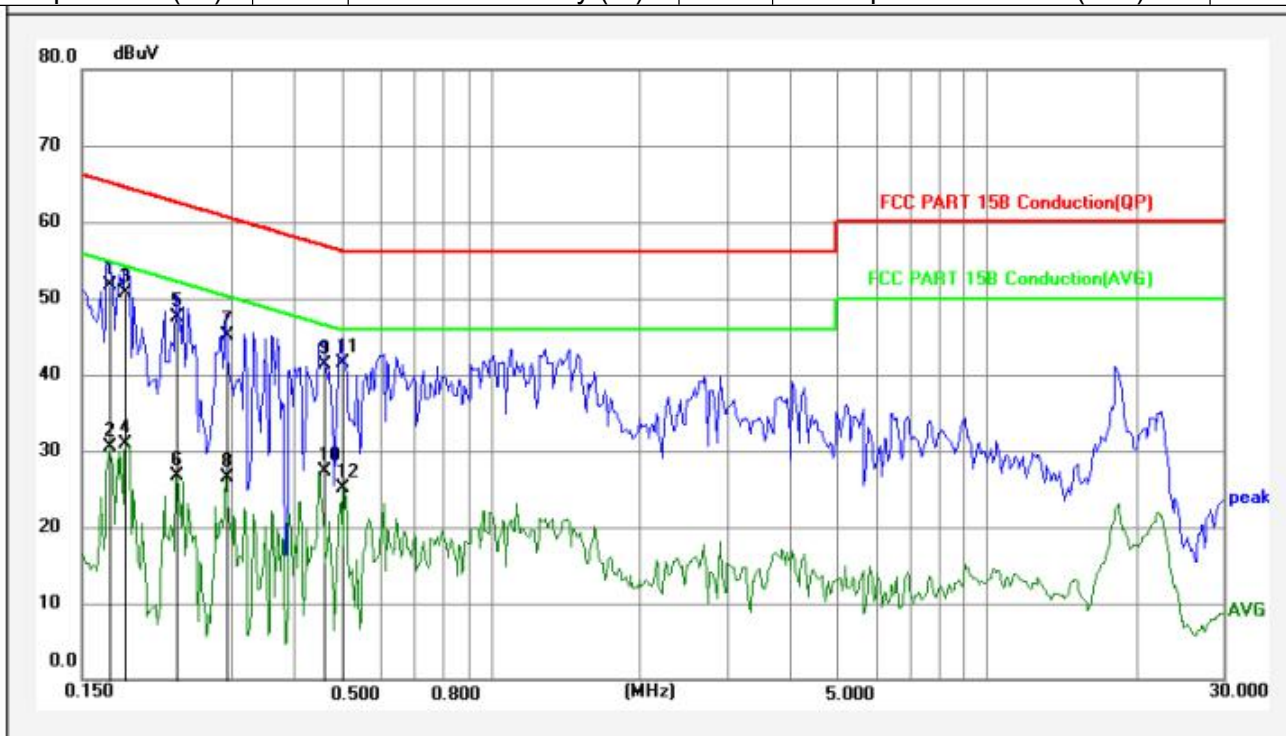
M/N		:	IVP0720-2500			
Test Mode		:	A（PCB-T484-I）			
Test Phase		:	Power Line; Live			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature（℃）:	23.9	Relative Humidity（%）:	57	Atmospheric Pressure(kPa）：	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1759	9.78	37.34	47.12	64.68	-17.56	QP		
2	0.1759	9.78	19.70	29.48	54.68	-25.20	AVG		
3	0.2270	9.79	33.93	43.72	62.56	-18.84	QP		
4	0.2270	9.79	15.22	25.01	52.56	-27.55	AVG		
5	0.2458	9.79	32.83	42.62	61.90	-19.28	QP		
6	0.2458	9.79	12.07	21.86	51.90	-30.04	AVG		
7	0.3048	9.81	33.82	43.63	60.11	-16.48	QP		
8	0.3048	9.81	18.54	28.35	50.11	-21.76	AVG		
9	0.4093	9.82	30.82	40.64	57.66	-17.02	QP		
10	0.4093	9.82	12.75	22.57	47.66	-25.09	AVG		
11	0.5076	9.81	29.71	39.52	56.00	-16.48	QP	*	
12	0.5076	9.81	15.16	24.97	46.00	-21.03	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

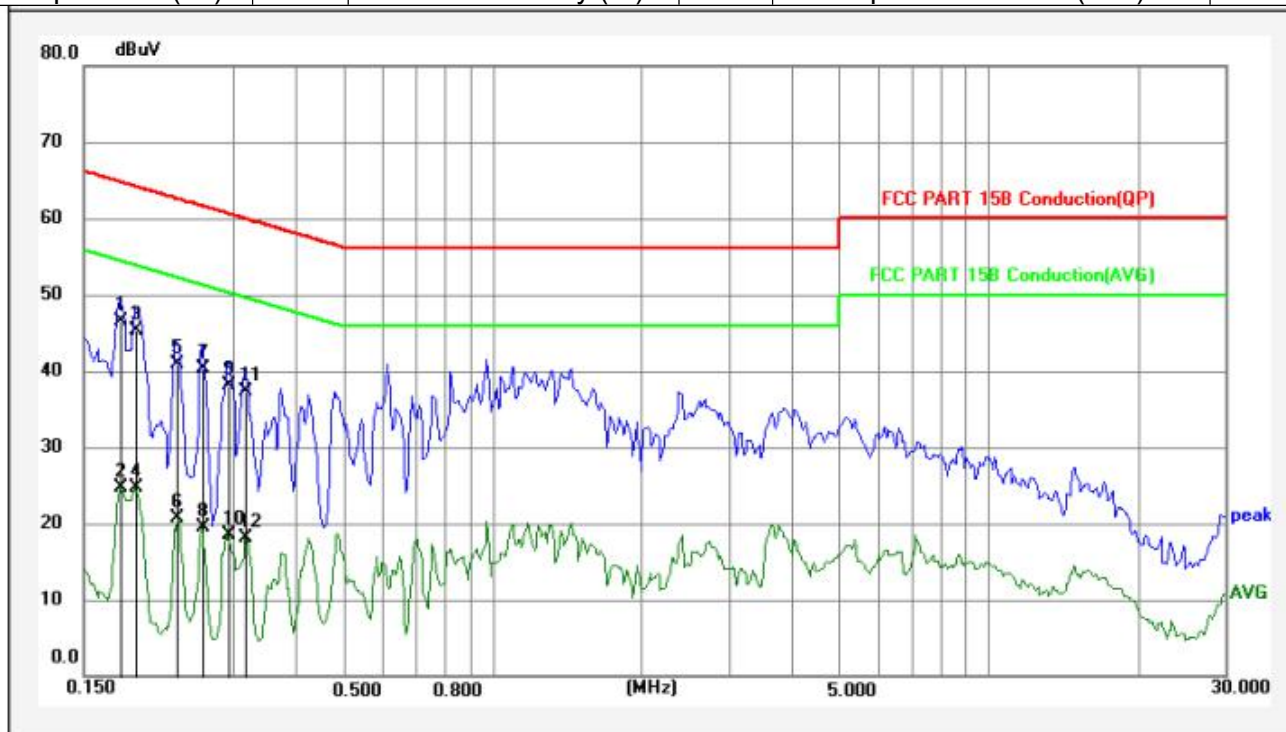
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Test Mode		:	A（PCB-T484-I）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1703	9.77	42.03	51.80	64.95	-13.15	QP	*	
2	0.1703	9.77	20.67	30.44	54.95	-24.51	AVG		
3	0.1830	9.78	40.92	50.70	64.35	-13.65	QP		
4	0.1830	9.78	21.04	30.82	54.35	-23.53	AVG		
5	0.2324	9.79	37.81	47.60	62.36	-14.76	QP		
6	0.2324	9.79	16.97	26.76	52.36	-25.60	AVG		
7	0.2929	9.81	35.39	45.20	60.44	-15.24	QP		
8	0.2929	9.81	16.72	26.53	50.44	-23.91	AVG		
9	0.4613	9.81	31.59	41.40	56.67	-15.27	QP		
10	0.4613	9.81	17.54	27.35	46.67	-19.32	AVG		
11	0.4996	9.81	31.69	41.50	56.01	-14.51	QP		
12	0.4996	9.81	15.25	25.06	46.01	-20.95	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

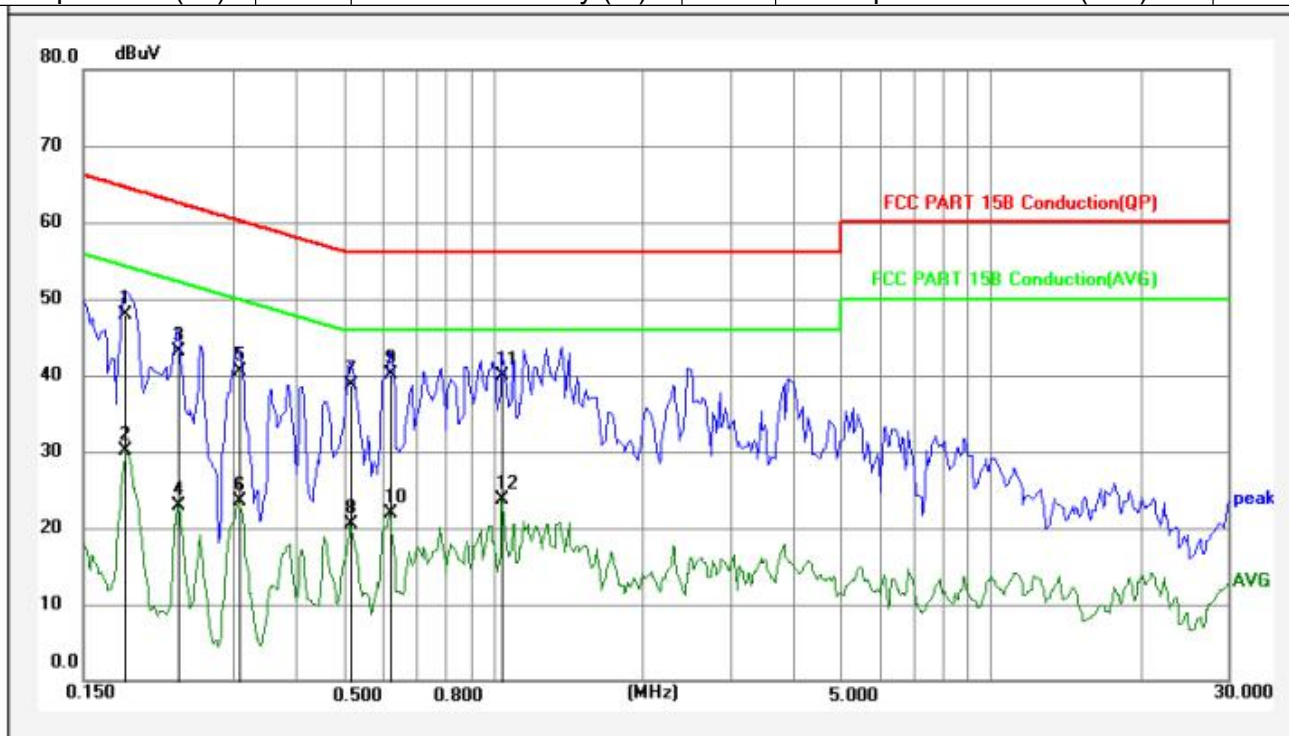
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Test Mode		:	A（PCB-T487-Q）			
Test Phase		:	Power Line; Live			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1773	9.86	36.64	46.50	64.61	-18.11	QP	*	
2	0.1773	9.86	14.91	24.77	54.61	-29.84	AVG		
3	0.1905	9.87	35.43	45.30	64.01	-18.71	QP		
4	0.1905	9.87	14.78	24.65	54.01	-29.36	AVG		
5	0.2307	9.87	31.03	40.90	62.42	-21.52	QP		
6	0.2307	9.87	10.88	20.75	52.42	-31.67	AVG		
7	0.2599	9.88	30.52	40.40	61.43	-21.03	QP		
8	0.2599	9.88	9.57	19.45	51.43	-31.98	AVG		
9	0.2929	9.88	28.32	38.20	60.44	-22.24	QP		
10	0.2929	9.88	8.63	18.51	50.44	-31.93	AVG		
11	0.3172	9.88	27.42	37.30	59.78	-22.48	QP		
12	0.3172	9.88	8.30	18.18	49.78	-31.60	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

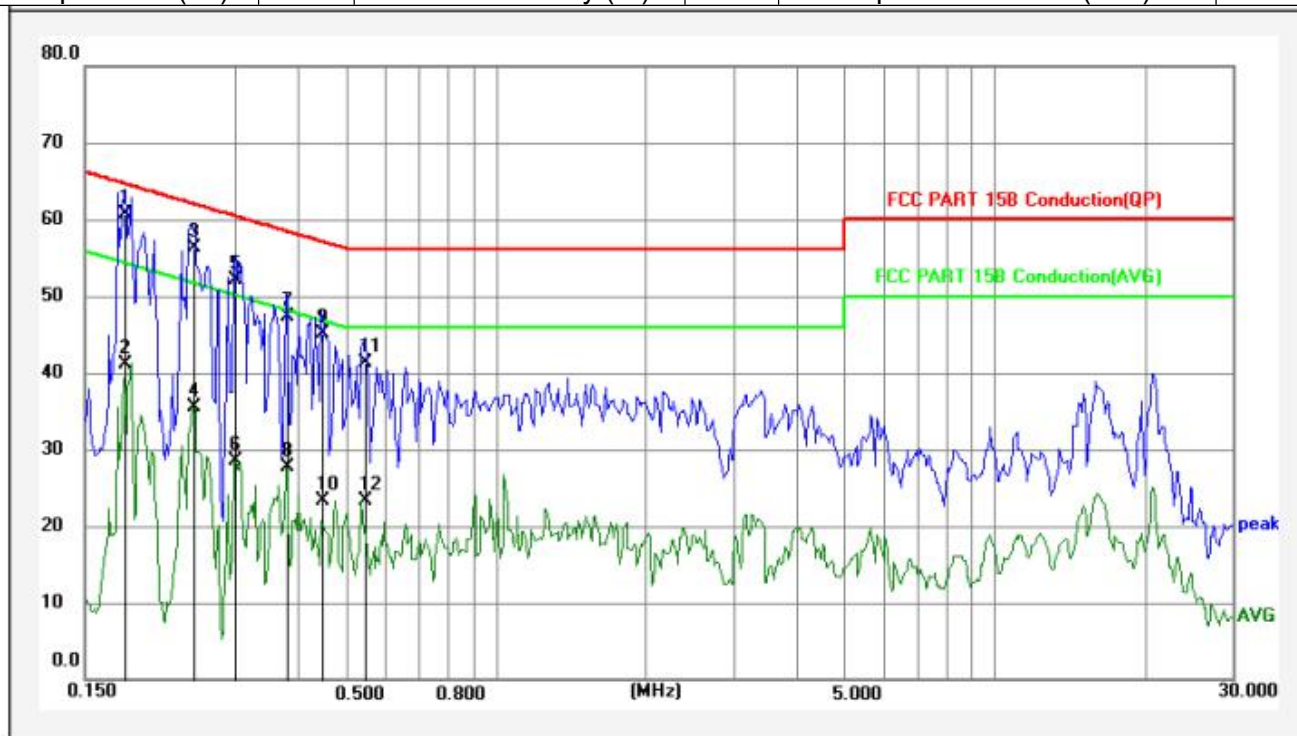
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Test Mode		:	A（PCB-T487-Q）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1816	9.78	38.12	47.90	64.41	-16.51	QP		
2	0.1816	9.78	20.27	30.05	54.41	-24.36	AVG		
3	0.2324	9.79	33.31	43.10	62.36	-19.26	QP		
4	0.2324	9.79	13.07	22.86	52.36	-29.50	AVG		
5	0.3072	9.81	30.69	40.50	60.05	-19.55	QP		
6	0.3072	9.81	13.68	23.49	50.05	-26.56	AVG		
7	0.5157	9.81	28.99	38.80	56.00	-17.20	QP		
8	0.5157	9.81	10.78	20.59	46.00	-25.41	AVG		
9	0.6195	9.83	30.27	40.10	56.00	-15.90	QP	*	
10	0.6195	9.83	12.15	21.98	46.00	-24.02	AVG		
11	1.0400	9.87	30.03	39.90	56.00	-16.10	QP		
12	1.0400	9.87	13.90	23.77	46.00	-22.23	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

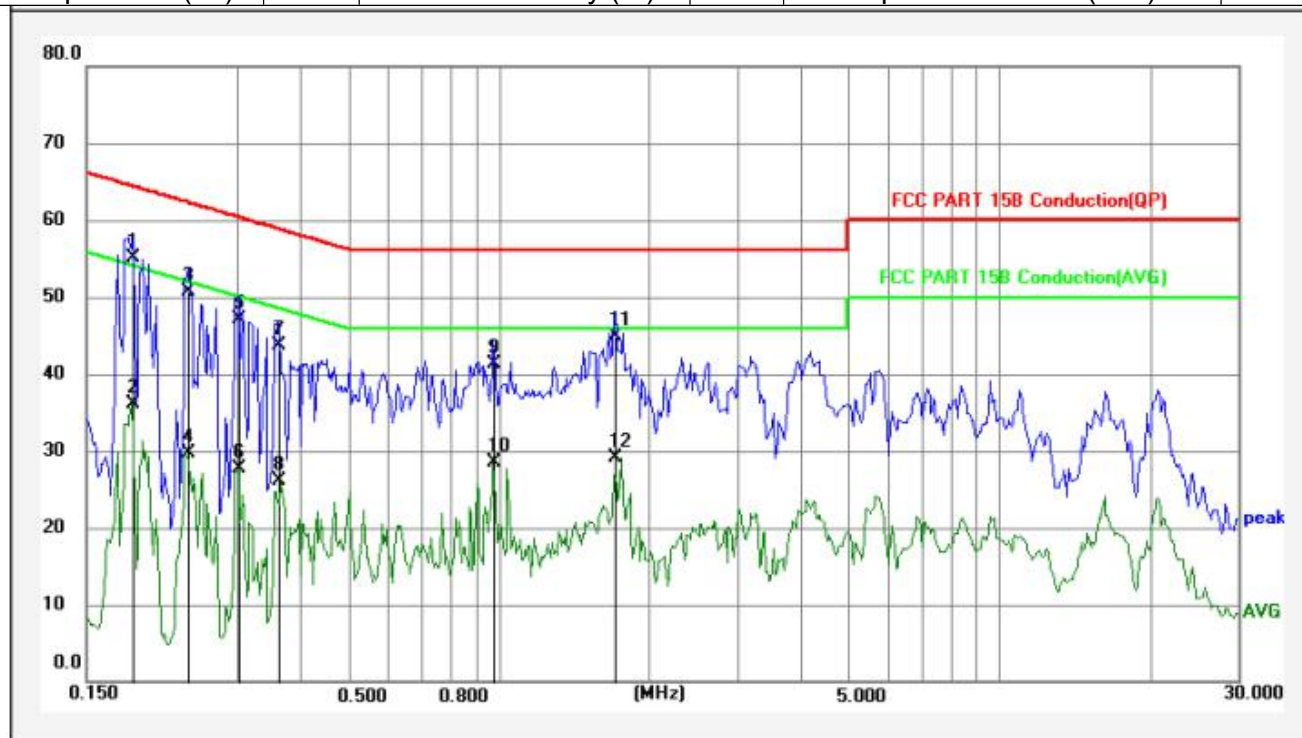
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Test Mode		:	A（PCB-T487-S）			
Test Phase		:	Power Line; Live			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature（℃）:	23.9	Relative Humidity（%）:	57	Atmospheric Pressure(kPa）：	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1801	9.92	50.88	60.80	64.48	-3.68	QP	*	
2	0.1801	9.92	31.28	41.20	54.48	-13.28	AVG		
3	0.2478	9.89	46.41	56.30	61.83	-5.53	QP		
4	0.2478	9.89	25.64	35.53	51.83	-16.30	AVG		
5	0.3000	9.87	42.23	52.10	60.24	-8.14	QP		
6	0.3000	9.87	18.68	28.55	50.24	-21.69	AVG		
7	0.3810	9.84	37.46	47.30	58.26	-10.96	QP		
8	0.3810	9.84	17.90	27.74	48.26	-20.52	AVG		
9	0.4468	9.82	35.28	45.10	56.93	-11.83	QP		
10	0.4468	9.82	13.45	23.27	46.93	-23.66	AVG		
11	0.5453	9.80	31.50	41.30	56.00	-14.70	QP		
12	0.5453	9.80	13.53	23.33	46.00	-22.67	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

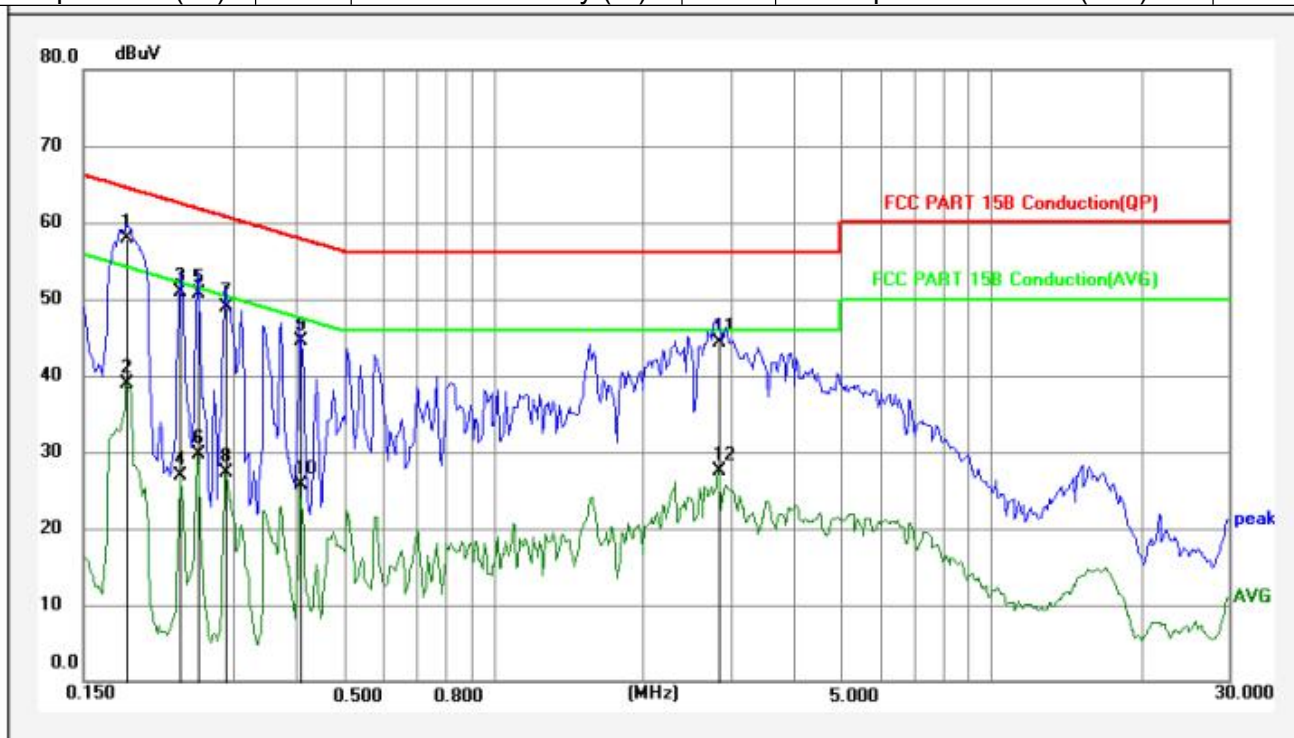
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Test Mode		:	A（PCB-T487-S）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1860	9.97	45.23	55.20	64.21	-9.01	QP	*	
2	0.1860	9.97	26.17	36.14	54.21	-18.07	AVG		
3	0.2400	9.90	40.90	50.80	62.10	-11.30	QP		
4	0.2400	9.90	19.77	29.67	52.10	-22.43	AVG		
5	0.3024	9.82	37.28	47.10	60.18	-13.08	QP		
6	0.3024	9.82	17.96	27.78	50.18	-22.40	AVG		
7	0.3633	9.73	33.97	43.70	58.65	-14.95	QP		
8	0.3633	9.73	16.41	26.14	48.65	-22.51	AVG		
9	0.9757	9.73	31.57	41.30	56.00	-14.70	QP		
10	0.9757	9.73	18.85	28.58	46.00	-17.42	AVG		
11	1.7043	9.77	35.13	44.90	56.00	-11.10	QP		
12	1.7043	9.77	19.29	29.06	46.00	-16.94	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

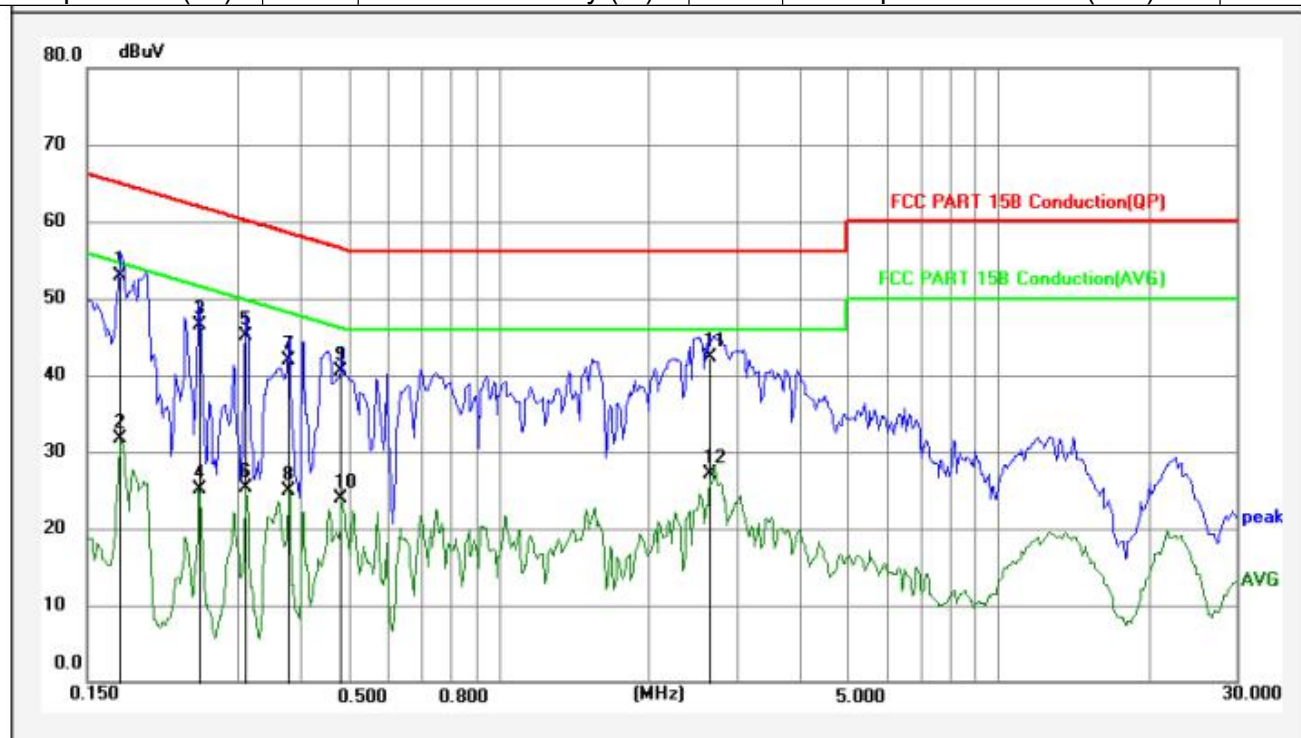
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Test Mode		:	A（PCB-T484-I）			
Test Phase		:	Power Line; Live			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature（℃）:	23.9	Relative Humidity（%）:	57	Atmospheric Pressure(kPa）：	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1830	9.78	48.04	57.82	64.35	-6.53	QP	*	
2	0.1830	9.78	29.19	38.97	54.35	-15.38	AVG		
3	0.2343	9.79	41.03	50.82	62.30	-11.48	QP		
4	0.2343	9.79	17.05	26.84	52.30	-25.46	AVG		
5	0.2537	9.80	40.82	50.62	61.64	-11.02	QP		
6	0.2537	9.80	19.84	29.64	51.64	-22.00	AVG		
7	0.2883	9.81	39.02	48.83	60.57	-11.74	QP		
8	0.2883	9.81	17.49	27.30	50.57	-23.27	AVG		
9	0.4093	9.82	34.72	44.54	57.66	-13.12	QP		
10	0.4093	9.82	15.93	25.75	47.66	-21.91	AVG		
11	2.8380	9.90	34.32	44.22	56.00	-11.78	QP		
12	2.8380	9.90	17.63	27.53	46.00	-18.47	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

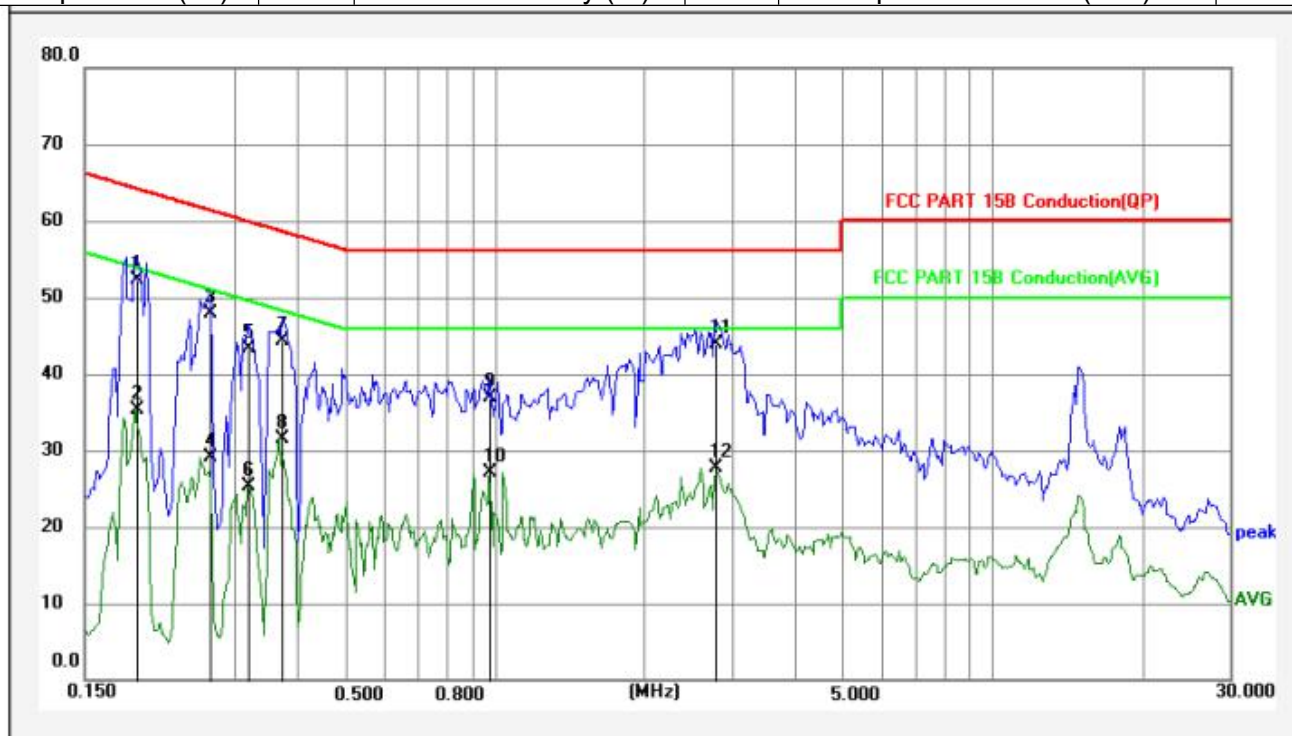
M/N		:	IVP3000-0600			
Test Mode		:	A（PCB-T484-I）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature（℃）:	23.9	Relative Humidity（%）:	57	Atmospheric Pressure(kPa）：	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1740	9.77	43.13	52.90	64.77	-11.87	QP	*	
2	0.1740	9.77	21.90	31.67	54.77	-23.10	AVG		
3	0.2508	9.80	36.80	46.60	61.73	-15.13	QP		
4	0.2508	9.80	15.22	25.02	51.73	-26.71	AVG		
5	0.3116	9.81	35.39	45.20	59.93	-14.73	QP		
6	0.3116	9.81	15.47	25.28	49.93	-24.65	AVG		
7	0.3791	9.82	32.08	41.90	58.30	-16.40	QP		
8	0.3791	9.82	15.10	24.92	48.30	-23.38	AVG		
9	0.4837	9.81	30.69	40.50	56.28	-15.78	QP		
10	0.4837	9.81	14.11	23.92	46.28	-22.36	AVG		
11	2.6500	9.89	32.41	42.30	56.00	-13.70	QP		
12	2.6500	9.89	17.25	27.14	46.00	-18.86	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

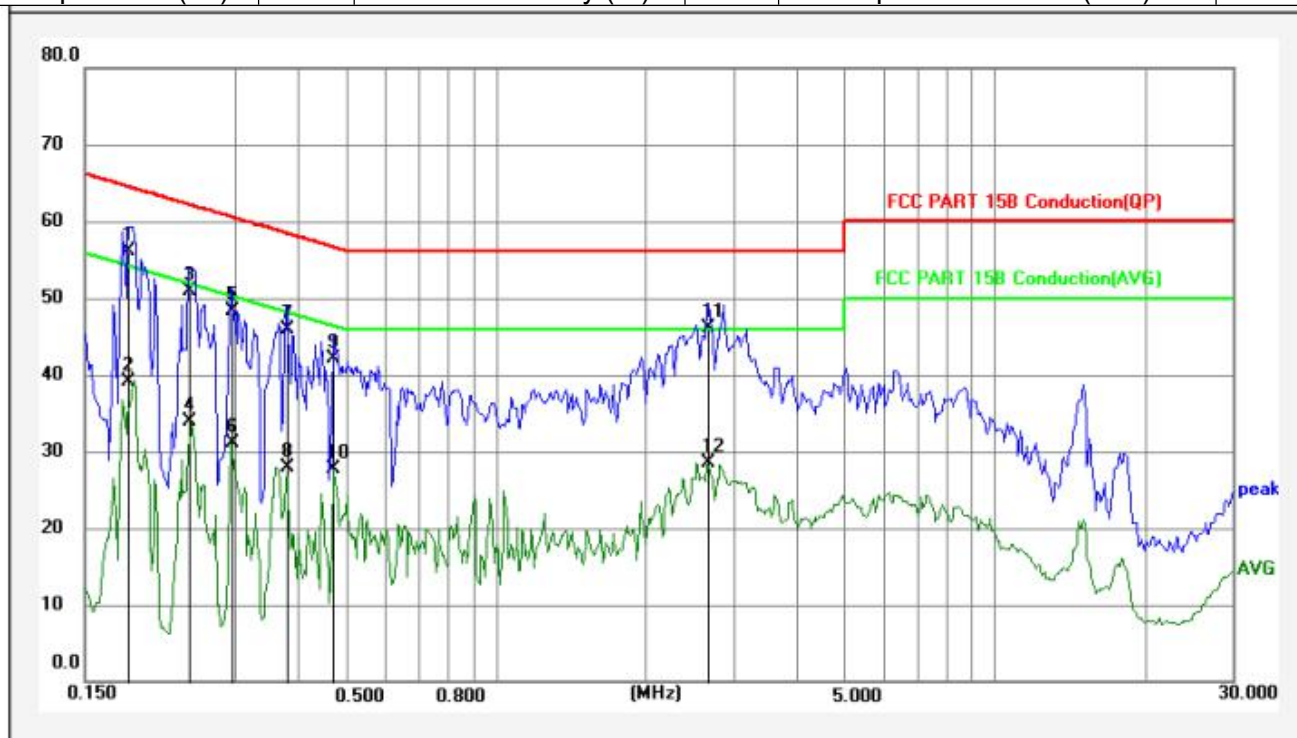
M/N		:	IVP3000-0600W			
Test Mode		:	A（PCB-T487-Q）			
Test Phase		:	Power Line; Live			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1905	9.91	42.49	52.40	64.01	-11.61	QP	*	
2	0.1905	9.91	25.49	35.40	54.01	-18.61	AVG		
3	0.2683	9.89	38.01	47.90	61.17	-13.27	QP		
4	0.2683	9.89	19.17	29.06	51.17	-22.11	AVG		
5	0.3198	9.87	33.53	43.40	59.71	-16.31	QP		
6	0.3198	9.87	15.40	25.27	49.71	-24.44	AVG		
7	0.3750	9.85	34.55	44.40	58.39	-13.99	QP		
8	0.3750	9.85	21.71	31.56	48.39	-16.83	AVG		
9	0.9757	9.82	27.08	36.90	56.00	-19.10	QP		
10	0.9757	9.82	17.35	27.17	46.00	-18.83	AVG		
11	2.7711	9.87	34.03	43.90	56.00	-12.10	QP		
12	2.7711	9.87	17.90	27.77	46.00	-18.23	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

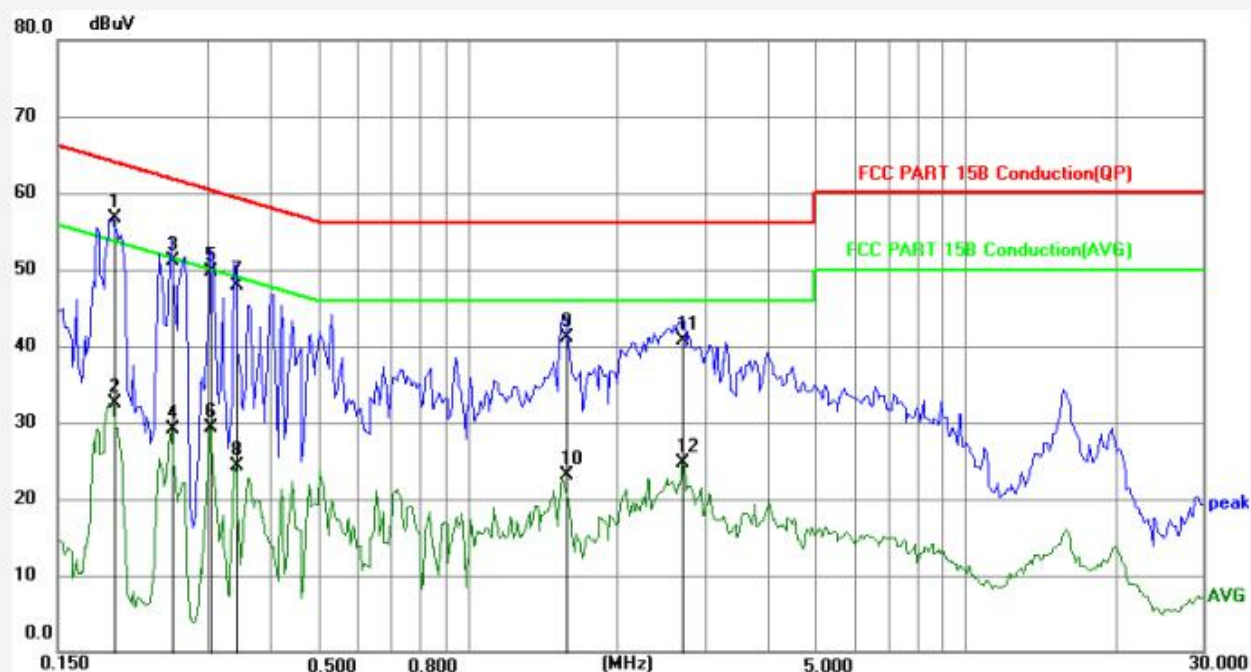
M/N		:	IVP3000-0600W			
Test Mode		:	A（PCB-T487-Q）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1830	9.98	46.22	56.20	64.35	-8.15	QP	*	
2	0.1830	9.98	29.22	39.20	54.35	-15.15	AVG		
3	0.2420	9.90	41.00	50.90	62.03	-11.13	QP		
4	0.2420	9.90	24.01	33.91	52.03	-18.12	AVG		
5	0.2952	9.82	38.48	48.30	60.38	-12.08	QP		
6	0.2952	9.82	21.29	31.11	50.38	-19.27	AVG		
7	0.3810	9.71	36.19	45.90	58.26	-12.36	QP		
8	0.3810	9.71	18.26	27.97	48.26	-20.29	AVG		
9	0.4725	9.59	32.61	42.20	56.47	-14.27	QP		
10	0.4725	9.59	18.03	27.62	46.47	-18.85	AVG		
11	2.6628	9.81	36.29	46.10	56.00	-9.90	QP		
12	2.6628	9.81	18.73	28.54	46.00	-17.46	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

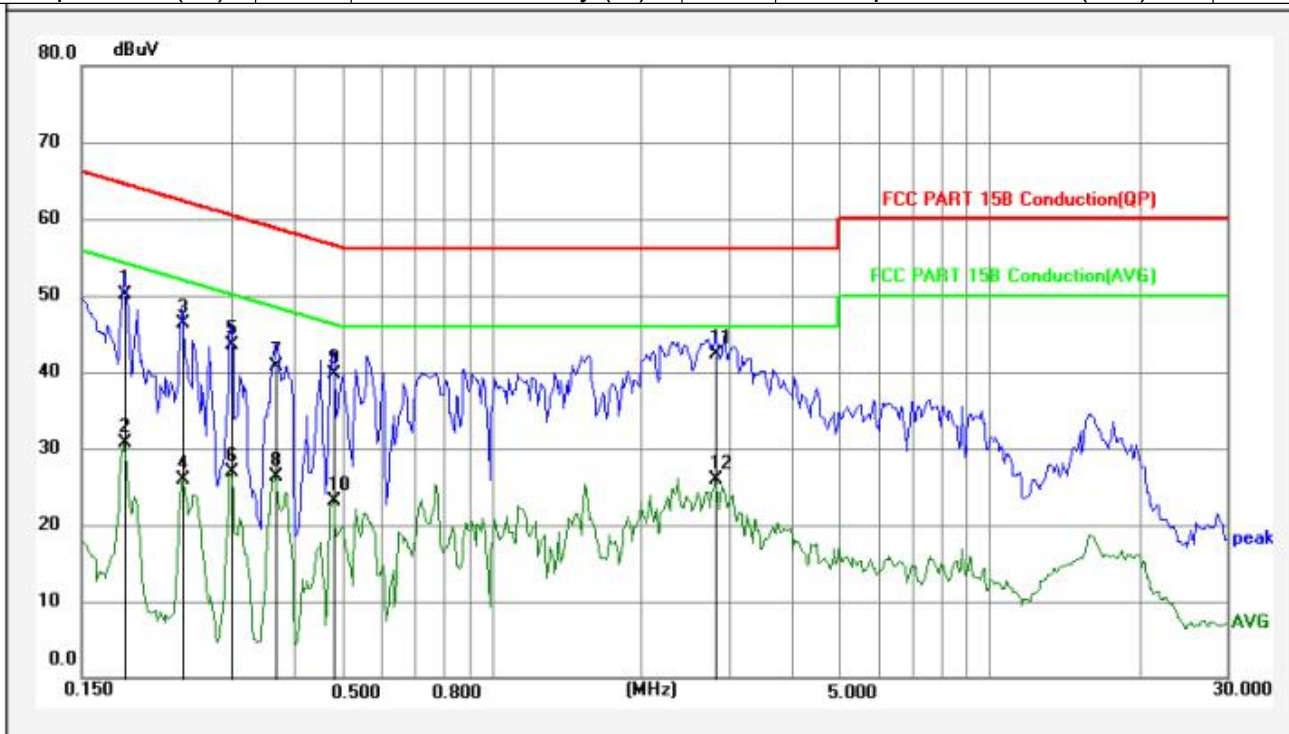
M/N	:	IVP3000-0600D			
Test Mode	:	A (PCB-T487-S)			
Test Phase	:	Power Line; Live			
Test Voltage	:	AC 120V/60Hz			
Test Engineer	:	Jerry Hu			
Test Date	:	2021.05.29			
Temperature (°C):	23.9	Relative Humidity (%):	57	Atmospheric Pressure(kPa) :	101.6



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1951	9.78	46.93	56.71	63.82	-7.11	QP	*	
2	0.1951	9.78	22.82	32.60	53.82	-21.22	AVG		
3	0.2537	9.80	41.32	51.12	61.64	-10.52	QP		
4	0.2537	9.80	19.25	29.05	51.64	-22.59	AVG		
5	0.3048	9.81	39.92	49.73	60.11	-10.38	QP		
6	0.3048	9.81	19.45	29.26	50.11	-20.85	AVG		
7	0.3435	9.81	38.02	47.83	59.12	-11.29	QP		
8	0.3435	9.81	14.52	24.33	49.12	-24.79	AVG		
9	1.5737	9.87	31.25	41.12	56.00	-14.88	QP		
10	1.5737	9.87	13.22	23.09	46.00	-22.91	AVG		
11	2.7056	9.89	30.83	40.72	56.00	-15.28	QP		
12	2.7056	9.89	14.75	24.64	46.00	-21.36	AVG		

Note: Level=Reading+Factor.
 Margin=Level-Limit.

M/N		:	IVP3000-0600D			
Test Mode		:	A（PCB-T487-S）			
Test Phase		:	Power Line; Neutral			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.29			
Temperature（℃）:	23.9	Relative Humidity（%）:	57	Atmospheric Pressure(kPa）：	101.6	

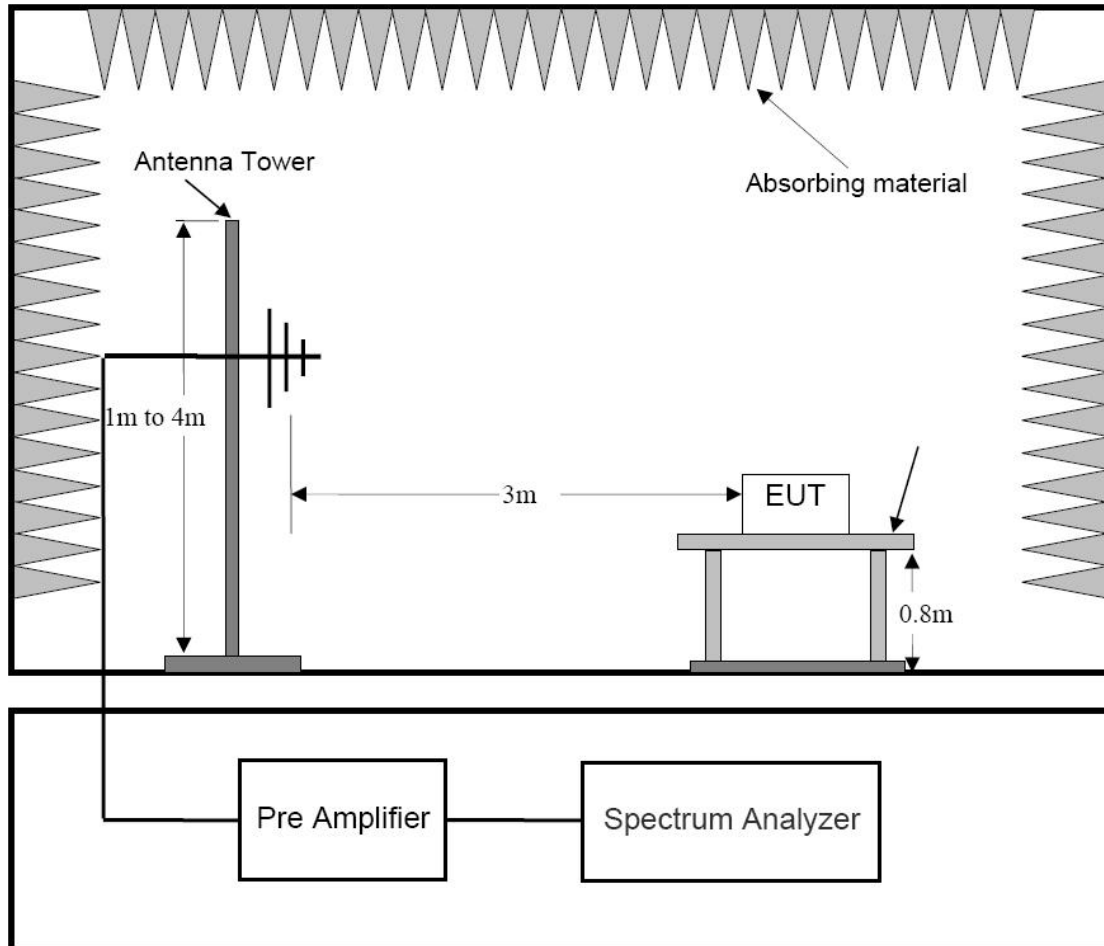


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Over (dB)	Detector	MK.	Remark
1	0.1830	9.78	40.42	50.20	64.35	-14.15	QP		
2	0.1830	9.78	20.83	30.61	54.35	-23.74	AVG		
3	0.2381	9.79	36.51	46.30	62.16	-15.86	QP		
4	0.2381	9.79	16.10	25.89	52.16	-26.27	AVG		
5	0.3000	9.81	33.69	43.50	60.24	-16.74	QP		
6	0.3000	9.81	17.15	26.96	50.24	-23.28	AVG		
7	0.3690	9.82	30.88	40.70	58.52	-17.82	QP		
8	0.3690	9.82	16.48	26.30	48.52	-22.22	AVG		
9	0.4800	9.81	29.99	39.80	56.34	-16.54	QP		
10	0.4800	9.81	13.30	23.11	46.34	-23.23	AVG		
11	2.8155	9.89	32.41	42.30	56.00	-13.70	QP	*	
12	2.8155	9.89	15.99	25.88	46.00	-20.12	AVG		

Note: Level=Reading+Factor.
Margin=Level-Limit.

4.2. RADIATED EMISSION TEST

4.2.1. Block Diagram of Test Setup



4.2.2. Limit

Limits for radiated disturbance of ITE at a measuring distance of 3m

Frequency range MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

- Remark: (1) Emission level $(\text{dB})\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
(2) The smaller limit shall apply at the cross point between two frequency bands.
(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.2.3. Test Procedure

- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- The height of antenna is varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.

4.2.4. Test Results

PASS.

Please refer to the following pages of the worst case:

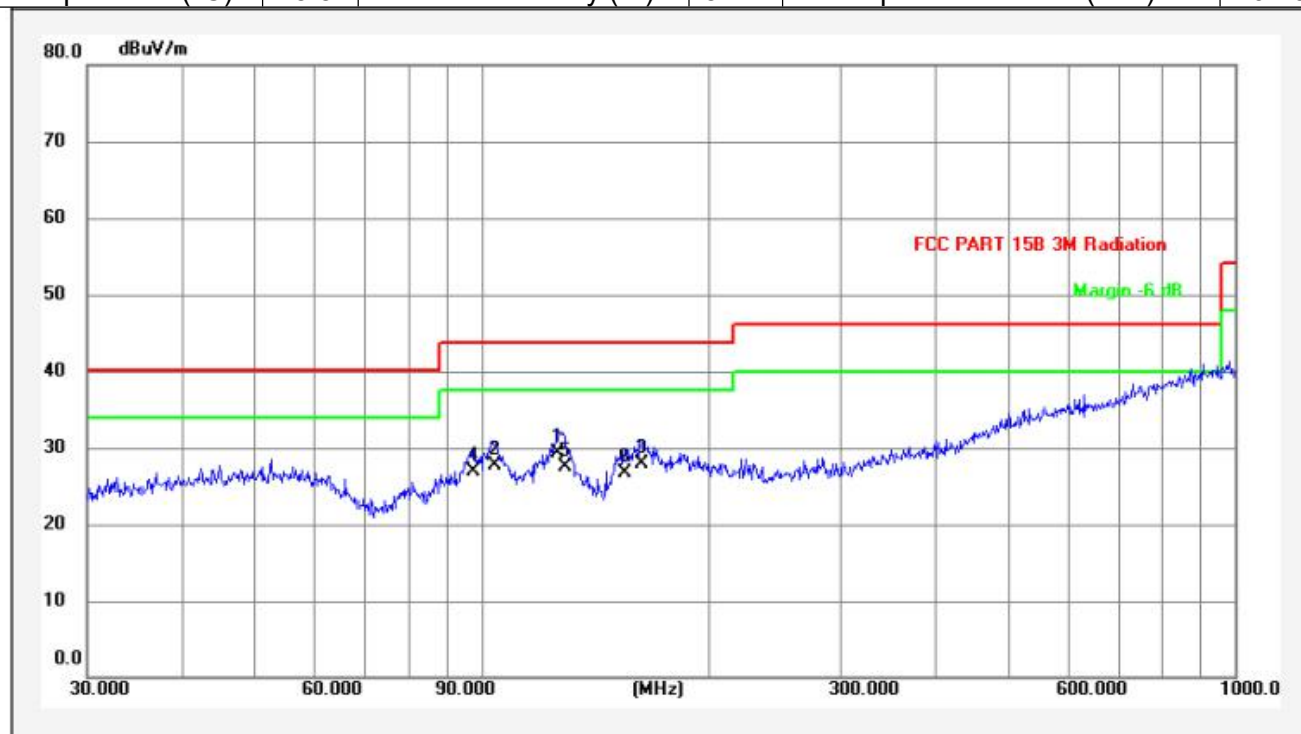
M/N		:	IVP0720-2500			
Test Mode		:	A(PCB-T484-I)			
Test Phase		:	Vertical			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	125.4457	10.95	21.45	32.40	43.50	-11.10	QP		
2	41.5670	12.38	18.72	31.10	40.00	-8.90	QP	*	
3	32.2925	11.63	18.37	30.00	40.00	-10.00	QP		
4	118.6014	11.55	20.55	32.10	43.50	-11.40	QP		
5	96.7749	12.61	16.79	29.40	43.50	-14.10	QP		
6	43.6584	12.36	17.64	30.00	40.00	-10.00	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

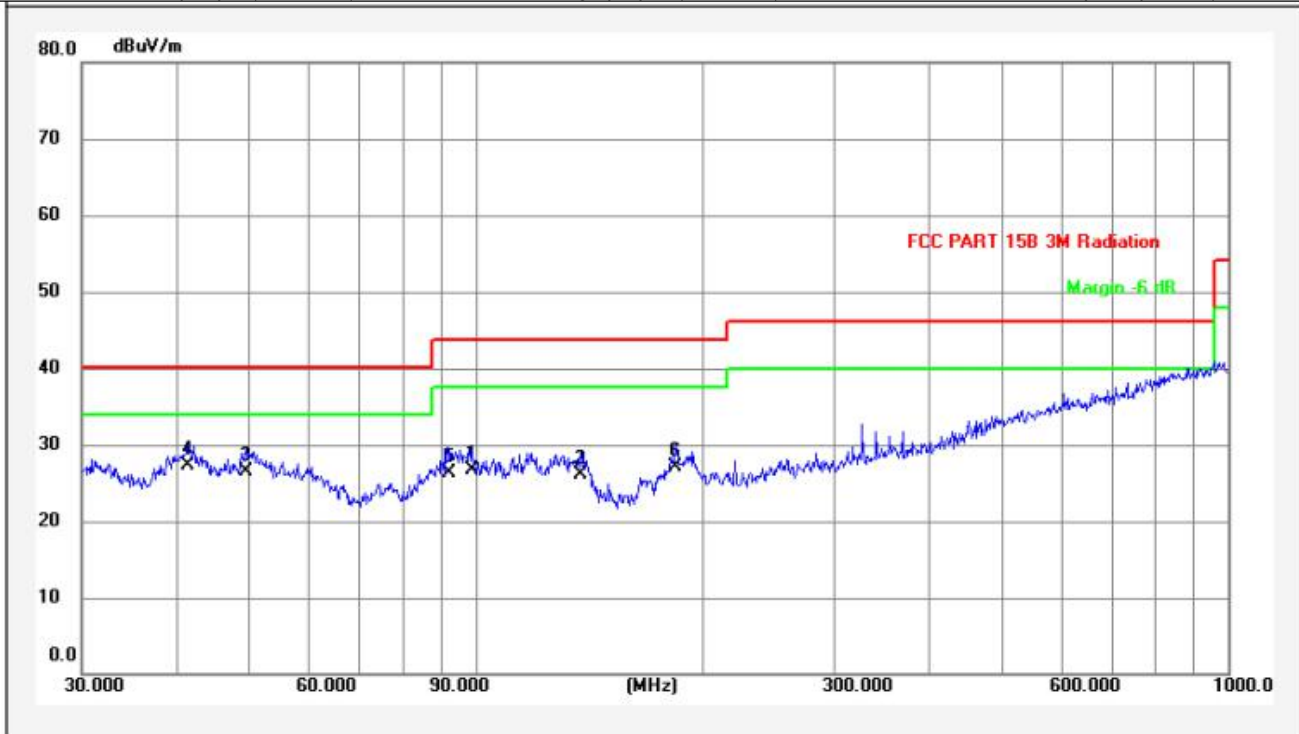
M/N		:	IVP0720-2500			
Test Mode		:	A(PCB-T484-I)			
Test Phase		:	Horizontal			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	125.8864	10.92	18.38	29.30	43.50	-14.20	QP	*	
2	103.8055	12.84	14.96	27.80	43.50	-15.70	QP		
3	162.6106	9.36	18.64	28.00	43.50	-15.50	QP		
4	97.4560	12.72	14.18	26.90	43.50	-16.60	QP		
5	129.4677	10.60	17.00	27.60	43.50	-15.90	QP		
6	154.8204	9.02	17.78	26.80	43.50	-16.70	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

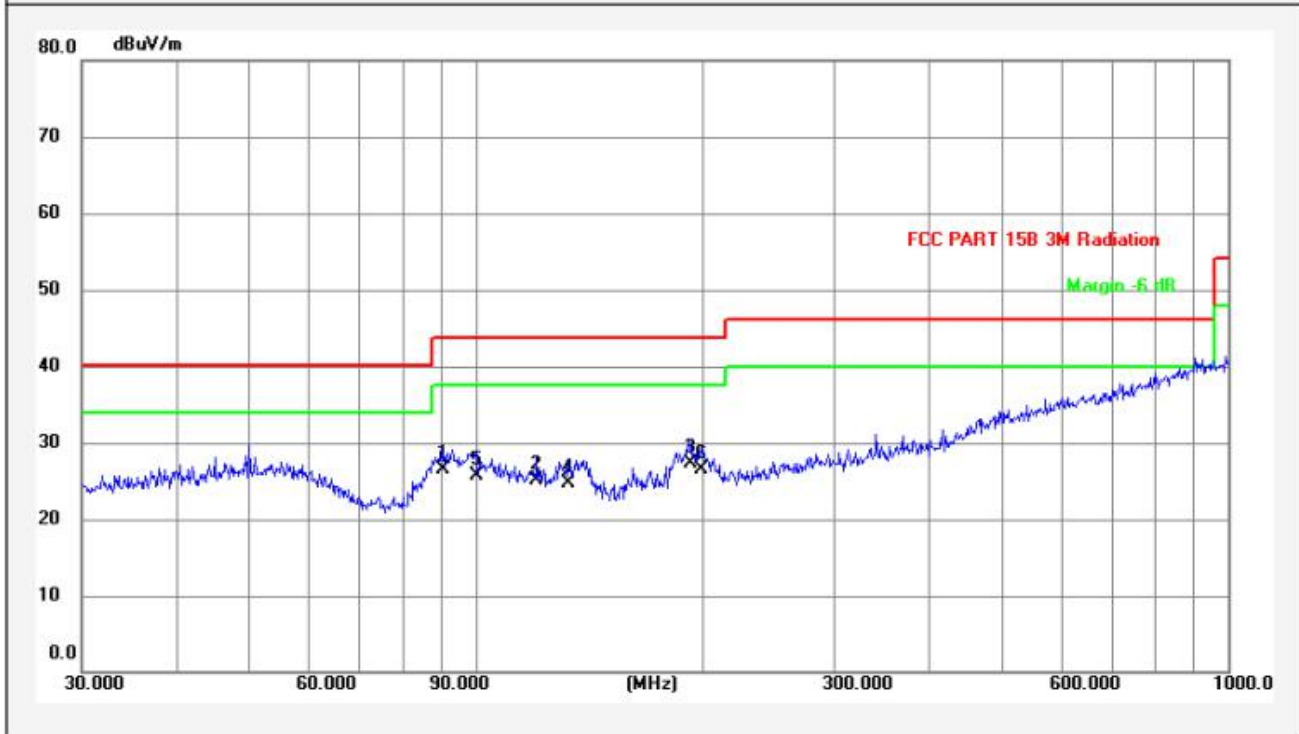
M/N	:	IVP0720-2500W			
Test Mode	:	A(PCB-T487-Q)			
Test Phase	:	Vertical			
Test Voltage	:	AC 120V/60Hz			
Test Engineer	:	Jerry Hu			
Test Date	:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	98.8326	12.97	13.83	26.80	43.50	-16.70	QP		
2	137.9028	9.87	16.23	26.10	43.50	-17.40	QP		
3	49.5328	12.30	14.30	26.60	40.00	-13.40	QP		
4	41.4215	12.39	15.01	27.40	40.00	-12.60	QP	*	
5	91.8163	11.74	14.66	26.40	43.50	-17.10	QP		
6	184.4898	10.30	16.80	27.10	43.50	-16.40	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

M/N		:	IVP0720-2500W			
Test Mode		:	A(PCB-T487-Q)			
Test Phase		:	Horizontal			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	90.2205	11.46	15.04	26.50	43.50	-17.00	QP		
2	120.6991	11.37	13.83	25.20	43.50	-18.30	QP		
3	192.4186	10.63	16.77	27.40	43.50	-16.10	QP	*	
4	132.6850	10.32	14.48	24.80	43.50	-18.70	QP		
5	100.2285	13.15	12.65	25.80	43.50	-17.70	QP		
6	199.9855	10.96	15.54	26.50	43.50	-17.00	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

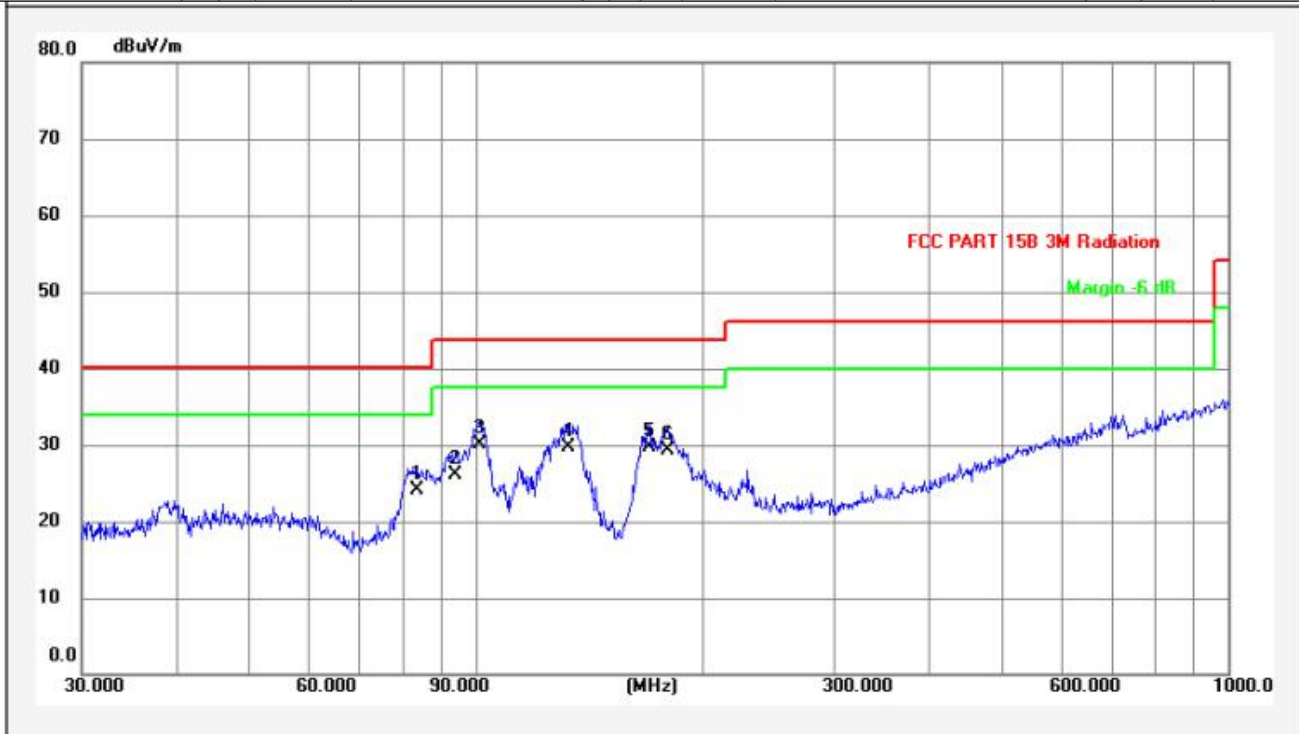
M/N	:	IVP0720-2500D			
Test Mode	:	A(PCB-T487-S)			
Test Phase	:	Vertical			
Test Voltage	:	AC 120V/60Hz			
Test Engineer	:	Jerry Hu			
Test Date	:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	34.3962	11.84	12.96	24.80	40.00	-15.20	QP		
2	38.4808	12.25	21.75	34.00	40.00	-6.00	QP		
3	73.3593	9.06	20.84	29.90	40.00	-10.10	QP		
4	84.9993	9.99	25.31	35.30	40.00	-4.70	QP	*	
5	134.0879	10.20	22.60	32.80	43.50	-10.70	QP		
6	91.4946	11.68	22.52	34.20	43.50	-9.30	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

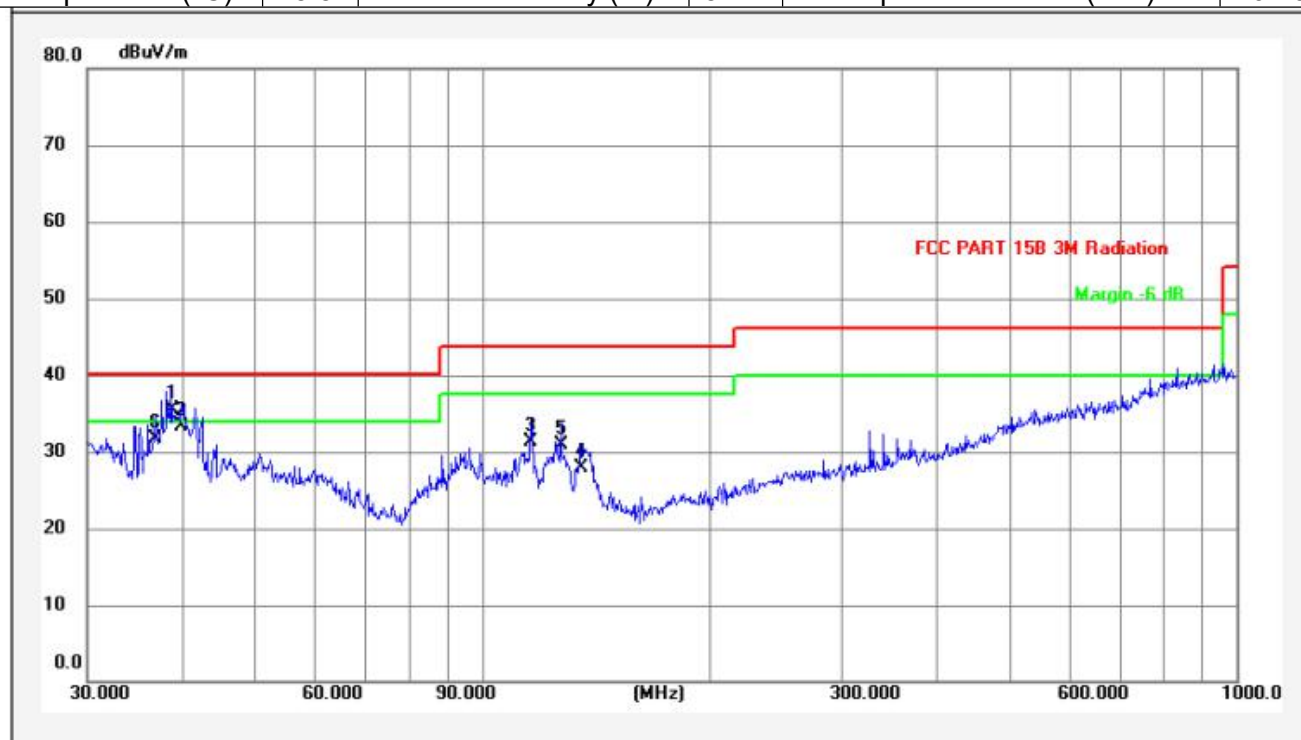
M/N	:	IVP0720-2500D			
Test Mode	:	A(PCB-T487-S)			
Test Phase	:	Horizontal			
Test Voltage	:	AC 120V/60Hz			
Test Engineer	:	Jerry Hu			
Test Date	:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	83.5220	9.57	14.63	24.20	40.00	-15.80	QP		
2	94.0978	12.14	13.96	26.10	43.50	-17.40	QP		
3	101.2883	13.06	17.04	30.10	43.50	-13.40	QP	*	
4	133.1510	10.29	19.41	29.70	43.50	-13.80	QP		
5	170.1947	9.68	20.12	29.80	43.50	-13.70	QP		
6	180.0164	10.10	19.20	29.30	43.50	-14.20	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

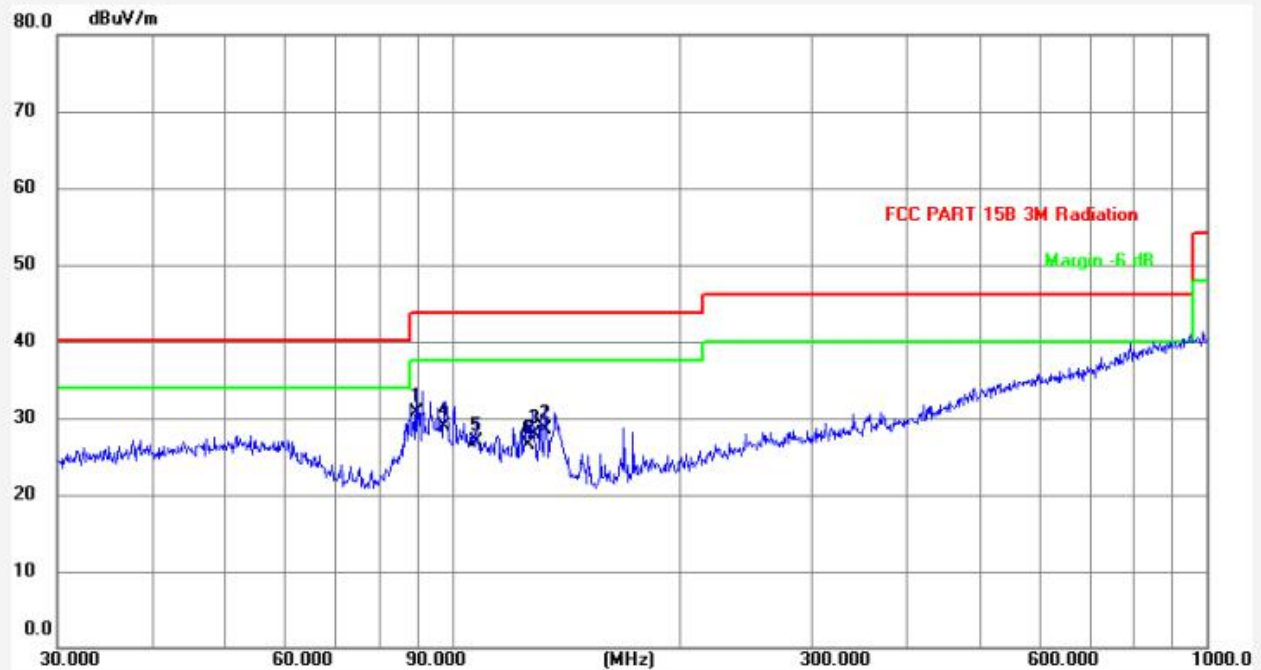
M/N		:	IVP3000-0600			
Test Mode		:	A(PCB-T484-I)			
Test Phase		:	Vertical			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	38.7518	12.28	23.32	35.60	40.00	-4.40	QP	*	
2	39.9942	12.40	20.90	33.30	40.00	-6.70	QP		
3	116.1321	11.76	19.64	31.40	43.50	-12.10	QP		
4	135.0319	10.12	17.88	28.00	43.50	-15.50	QP		
5	127.2176	10.80	20.20	31.00	43.50	-12.50	QP		
6	36.8953	12.09	19.71	31.80	40.00	-8.20	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

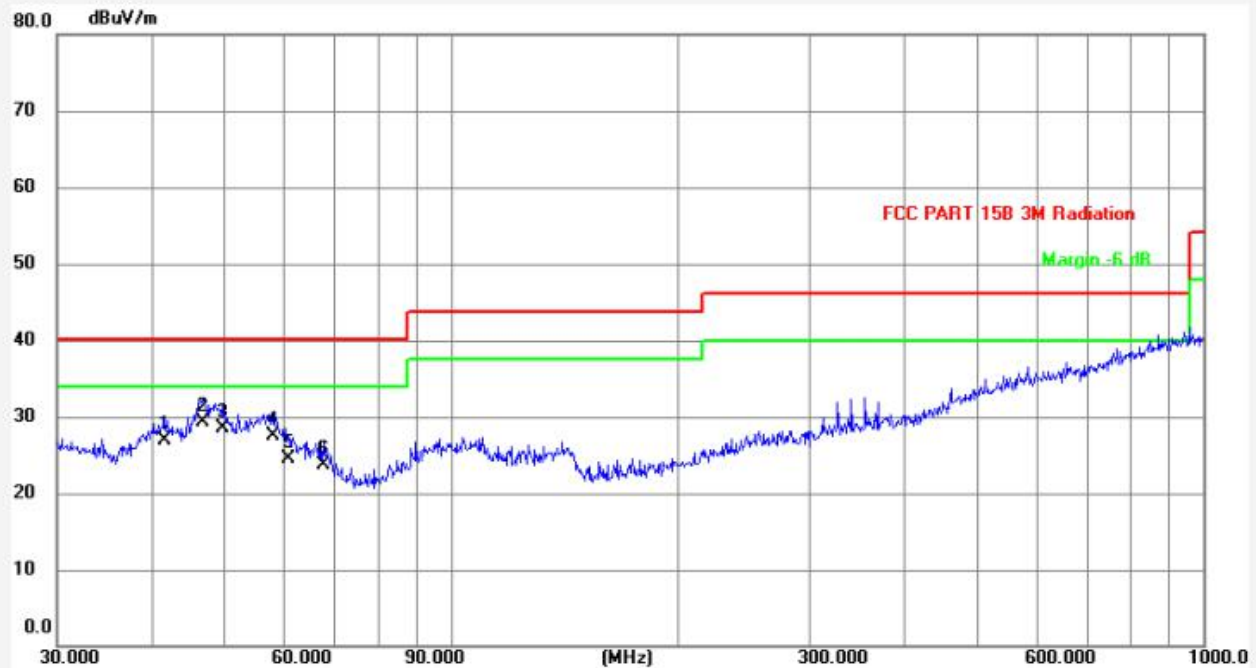
M/N	:	IVP3000-0600				
Test Mode	:	A(PCB-T484-I)				
Test Phase	:	Horizontal				
Test Voltage	:	AC 120V/60Hz				
Test Engineer	:	Jerry Hu				
Test Date	:	2021.05.31				
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	89.5899	11.30	19.50	30.80	43.50	-12.70	QP	*	
2	132.6850	10.32	18.18	28.50	43.50	-15.00	QP		
3	128.1130	10.72	17.28	28.00	43.50	-15.50	QP		
4	97.7983	12.78	16.22	29.00	43.50	-14.50	QP		
5	107.5101	12.52	14.38	26.90	43.50	-16.60	QP		
6	125.8864	10.92	15.58	26.50	43.50	-17.00	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

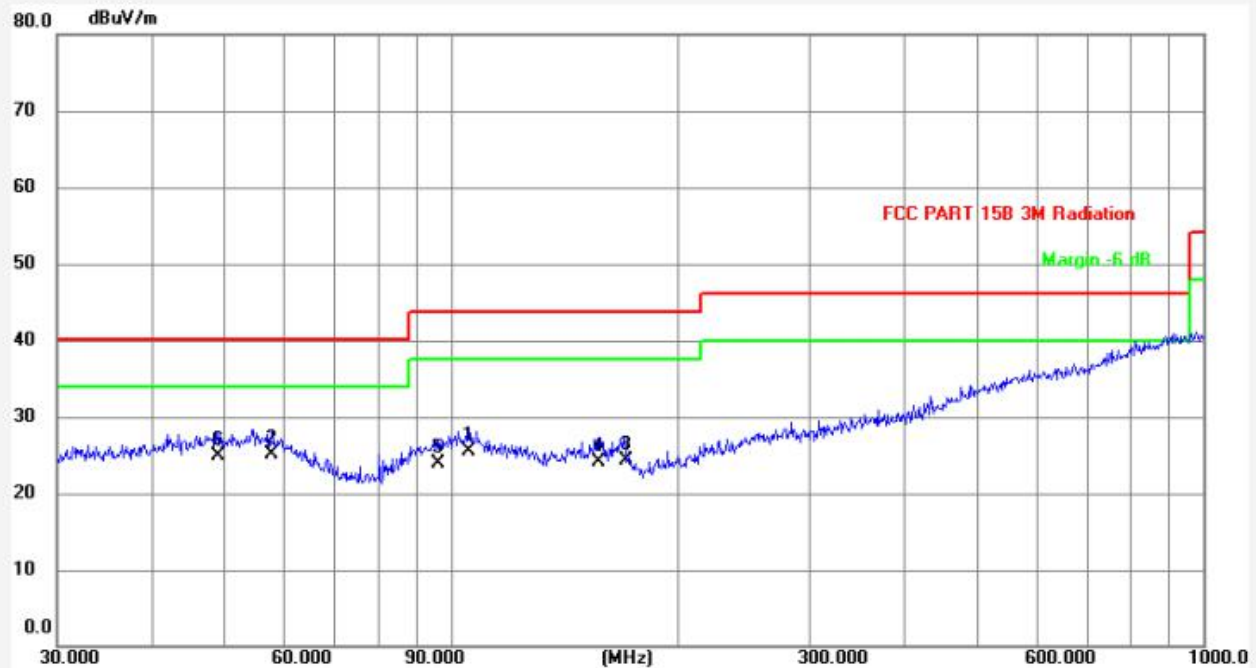
M/N		:	IVP3000-0600W			
Test Mode		:	A(PCB-T487-Q)			
Test Phase		:	Vertical			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	41.7129	12.38	14.62	27.00	40.00	-13.00	QP		
2	46.8302	12.33	16.97	29.30	40.00	-10.70	QP	*	
3	49.7066	12.30	16.30	28.60	40.00	-11.40	QP		
4	58.2029	12.96	14.64	27.60	40.00	-12.40	QP		
5	60.9175	12.54	11.96	24.50	40.00	-15.50	QP		
6	67.6751	10.14	13.66	23.80	40.00	-16.20	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

M/N		:	IVP3000-0600W			
Test Mode		:	A(PCB-T487-Q)			
Test Phase		:	Horizontal			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	105.6415	12.68	12.92	25.60	43.50	-17.90	QP		
2	57.7962	12.98	12.12	25.10	40.00	-14.90	QP	*	
3	170.1948	9.68	14.72	24.40	43.50	-19.10	QP		
4	157.5588	9.14	15.06	24.20	43.50	-19.30	QP		
5	96.0986	12.49	11.51	24.00	43.50	-19.50	QP		
6	48.8429	12.31	12.59	24.90	40.00	-15.10	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

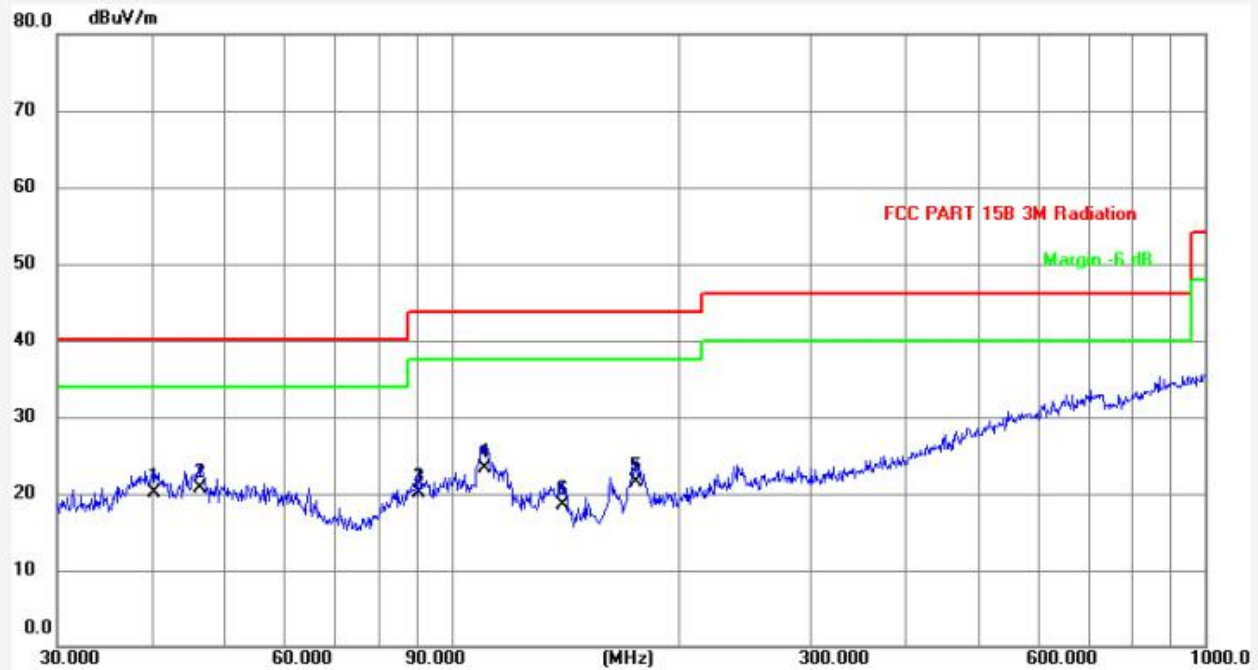
M/N		:	IVP3000-0600D			
Test Mode		:	A(PCB-T487-S)			
Test Phase		:	Vertical			
Test Voltage		:	AC 120V/60Hz			
Test Engineer		:	Jerry Hu			
Test Date		:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6	



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	38.2120	12.22	23.78	36.00	40.00	-4.00	QP	*	
2	46.0162	12.34	16.56	28.90	40.00	-11.10	QP		
3	70.3365	9.29	15.41	24.70	40.00	-15.30	QP		
4	78.9651	8.64	16.86	25.50	40.00	-14.50	QP		
5	90.8554	11.56	14.94	26.50	43.50	-17.00	QP		
6	109.0284	12.38	11.72	24.10	43.50	-19.40	QP		

Note: Level=Reading+Factor.
Margin=Level-Limit.

M/N	:	IVP3000-0600D			
Test Mode	:	A(PCB-T487-S)			
Test Phase	:	Horizontal			
Test Voltage	:	AC 120V/60Hz			
Test Engineer	:	Jerry Hu			
Test Date	:	2021.05.31			
Temperature (°C):	25.5	Relative Humidity (%):	54	Atmospheric Pressure(kPa) :	101.6



No.	Frequency (MHz)	Factor (dBuV/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Over (dB)	Detector	MK.	Remark
1	40.4170	12.40	7.70	20.10	40.00	-19.90	QP		
2	46.5030	12.33	8.47	20.80	40.00	-19.20	QP	*	
3	90.5374	11.52	8.58	20.10	43.50	-23.40	QP		
4	110.9569	12.22	11.08	23.30	43.50	-20.20	QP		
5	175.6516	9.92	11.68	21.60	43.50	-21.90	QP		
6	140.3420	9.65	8.85	18.50	43.50	-25.00	QP		

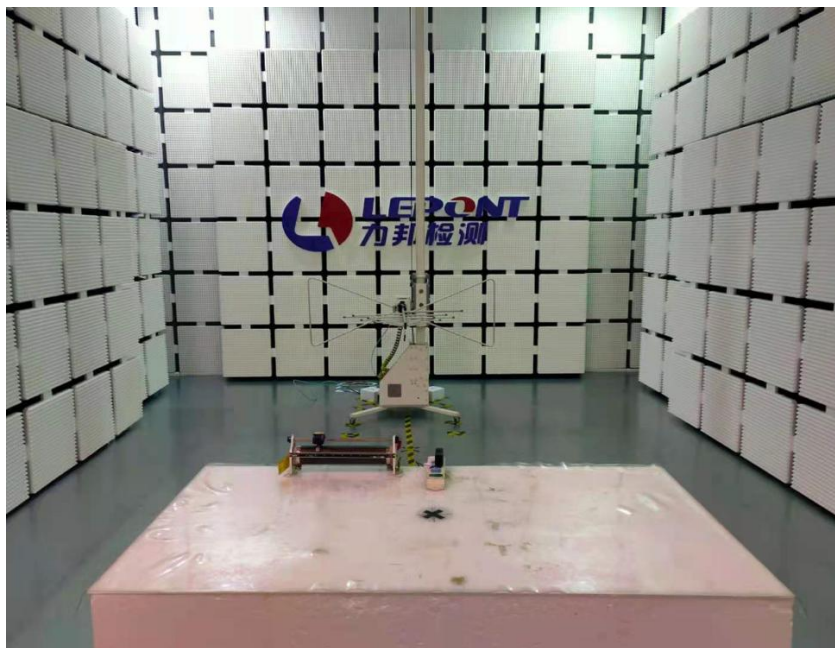
Note: Level=Reading+Factor.
Margin=Level-Limit.

5. TEST PHOTOGRAPHS

Conducted Emission at The Mains Terminals Test



Radiated Emission Test



6. PHOTOGRAPHS OF THE EUT

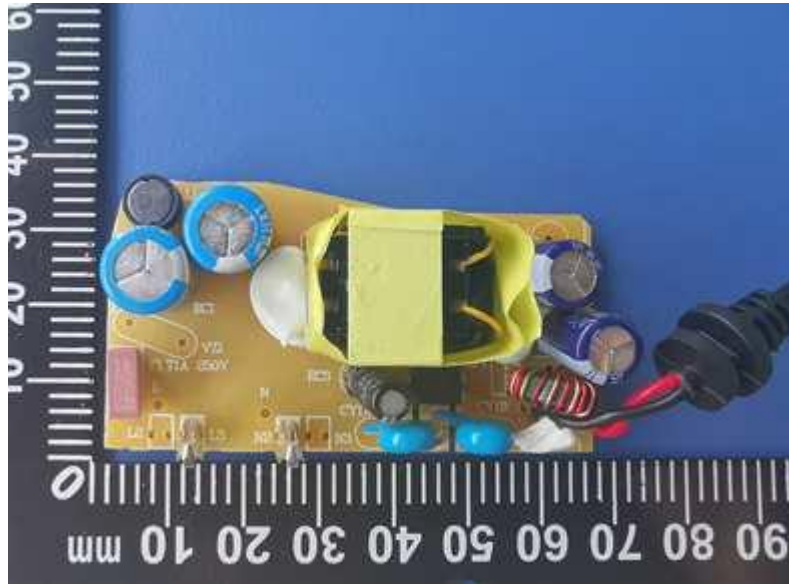
External view for model IVPxxxx-yyyy



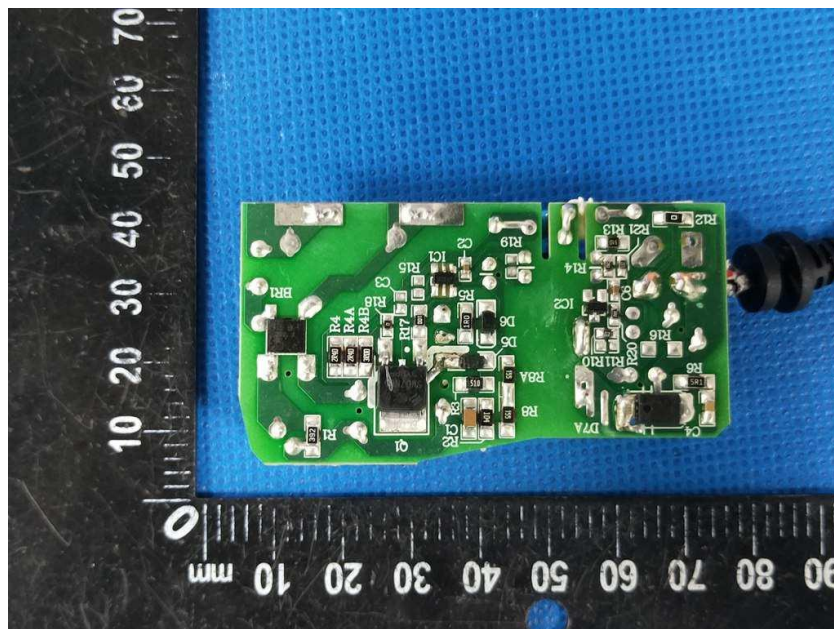
External view for model IVPxxxx-yyyy



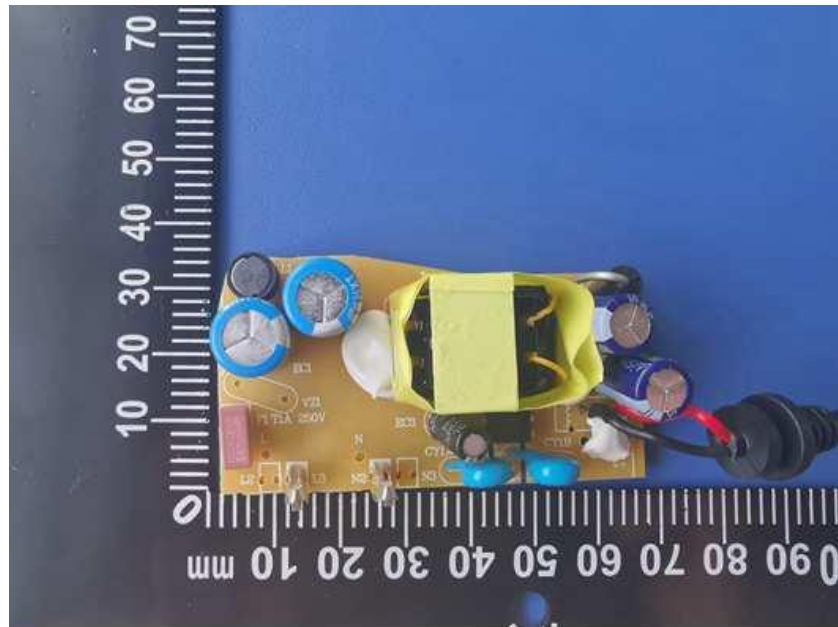
PCB top side view for model IVPxxxx-yyyy (without D7, with LF1)



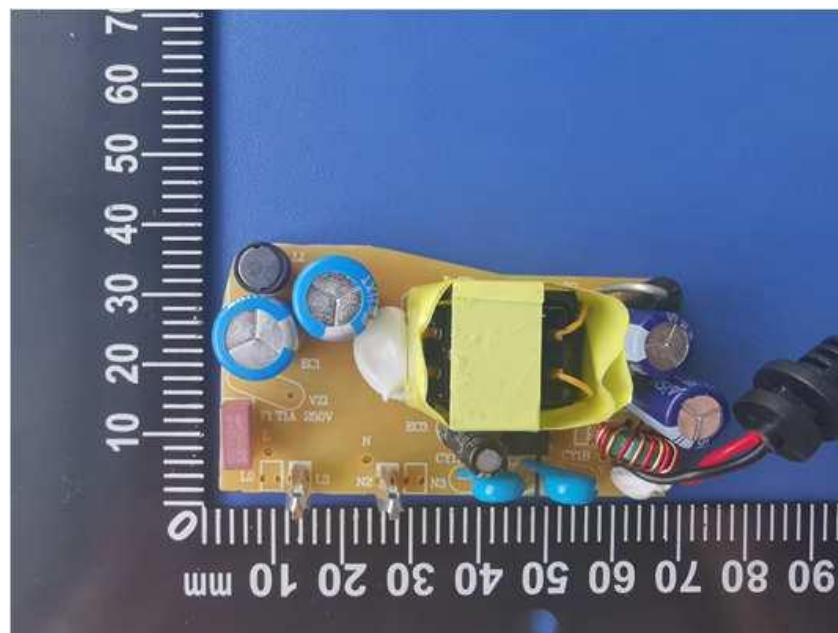
PCB Bottom side view for model IVPxxxx-yyyy (with D7A)



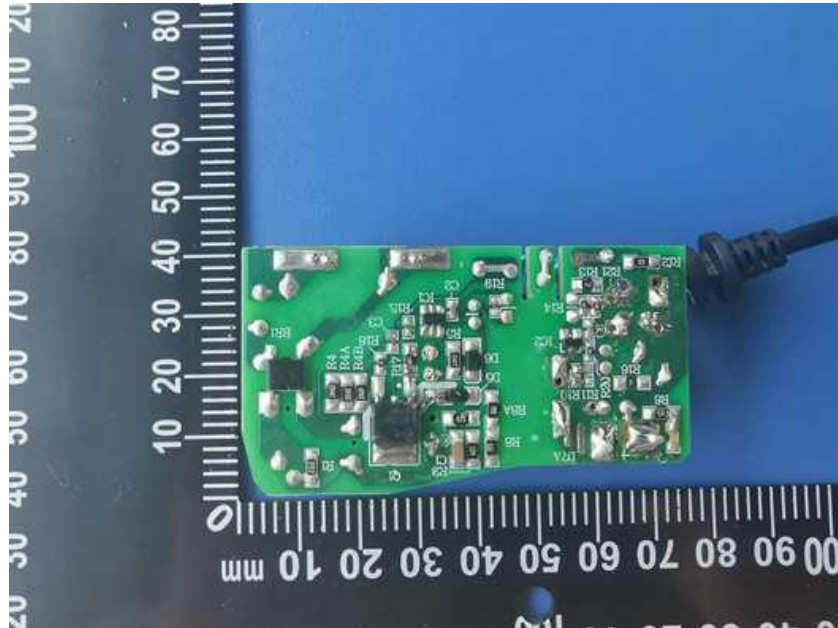
PCB top side view for model IVPxxxx-yyyy (with D7, without LF1)



PCB top side view for model IVPxxxx-yyyy (with D7 , LF1)



PCB Bottom side view for model IVPxxxx-yyyy (without D7A)



External view for model IVPxxxx-yyyyW and IVPxxxx-yyyyD



External view for model IVPxxxx-yyyW



External view for model IVPxxxx-yyyD



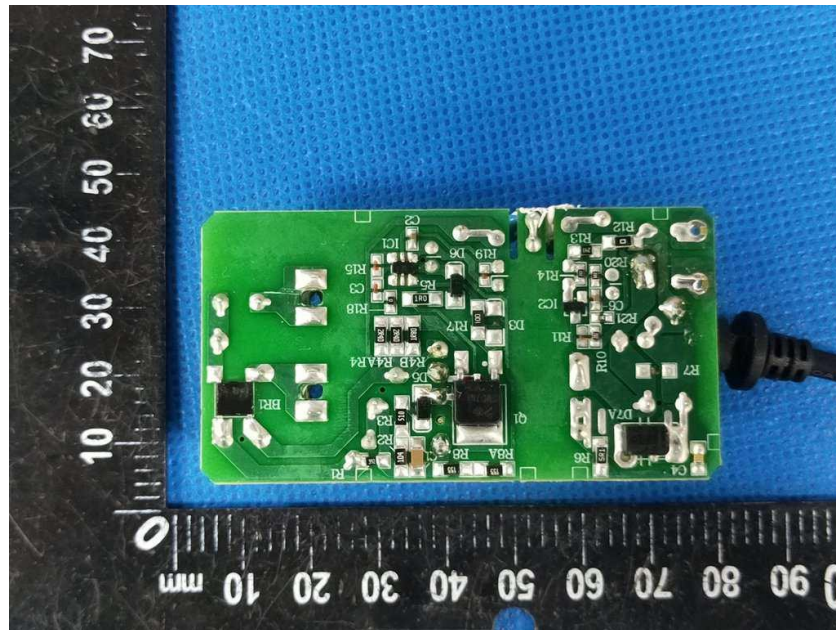
Internal view for model IVPxxxx-yyyyW represent model IVPxxxx-yyyyD



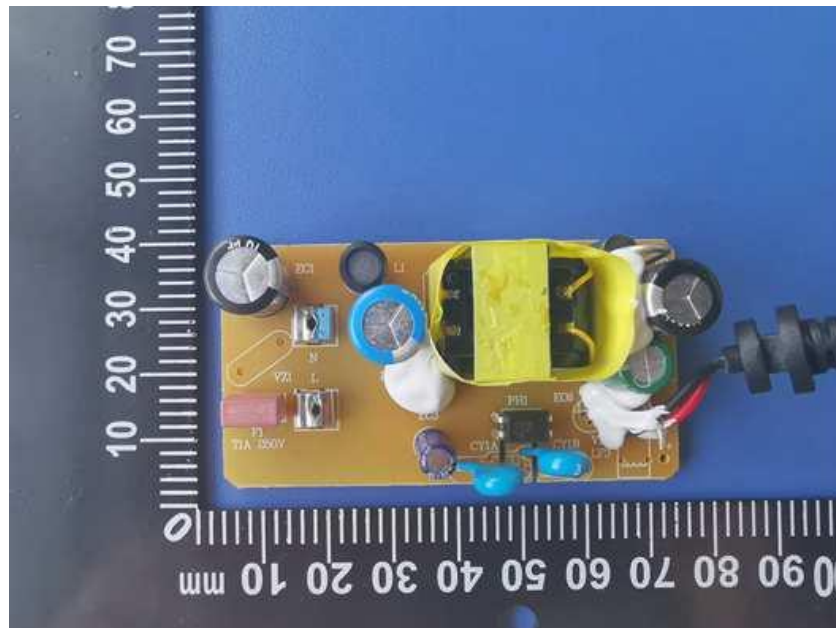
PCB top side view for model IVPxxxx-yyyyW (without D7, LF3)



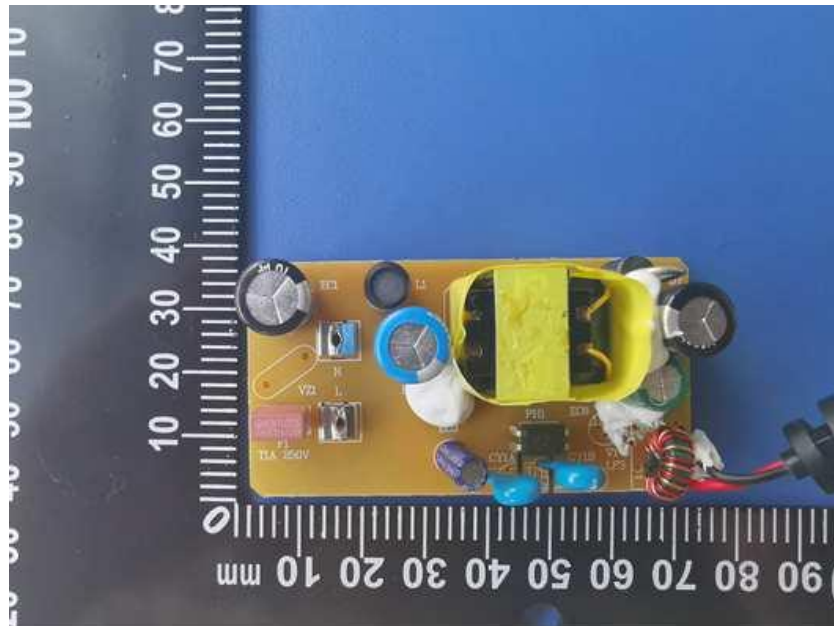
PCB bottom side view for model IVPxxxx-yyyyW (with D7A)



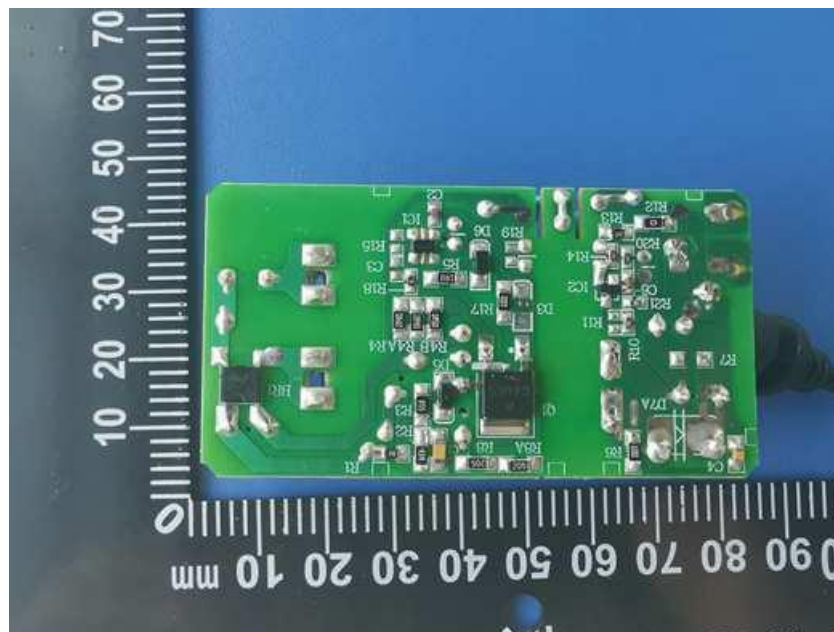
PCB component side view for model IVPxxxx-yyyyW (with D7, without LF3)



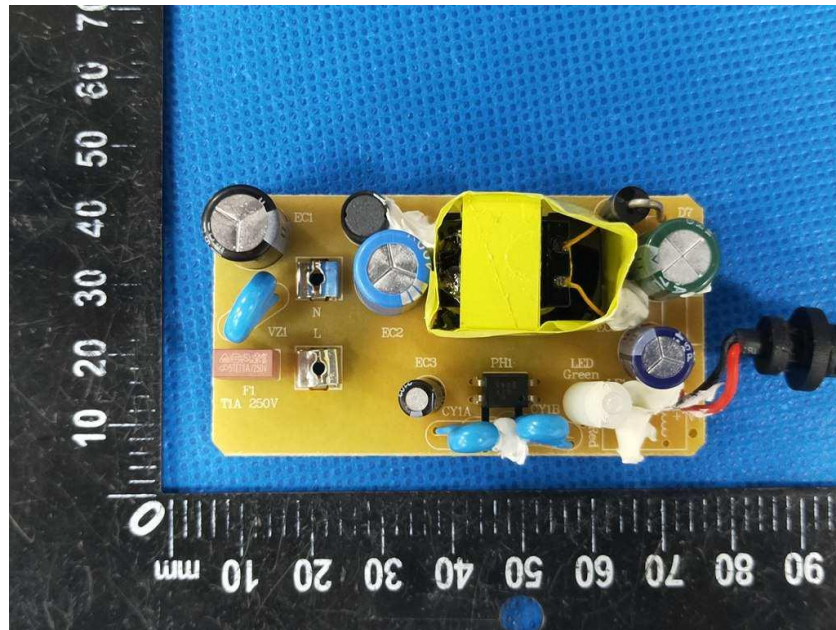
PCB top side view for model IVPxxxx-yyyyW (with D7 and LF3)



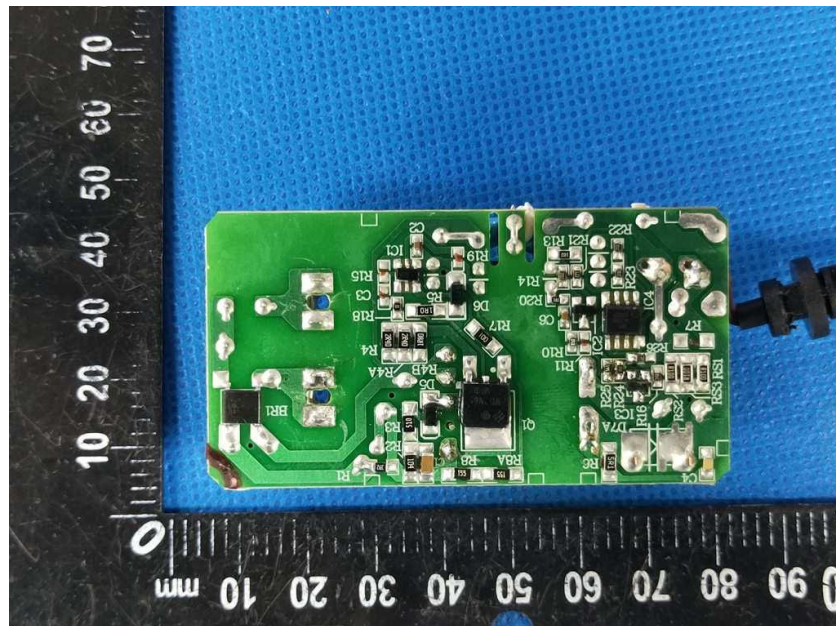
PCB bottom side view for model IVPxxxx-yyyyW (without D7A)



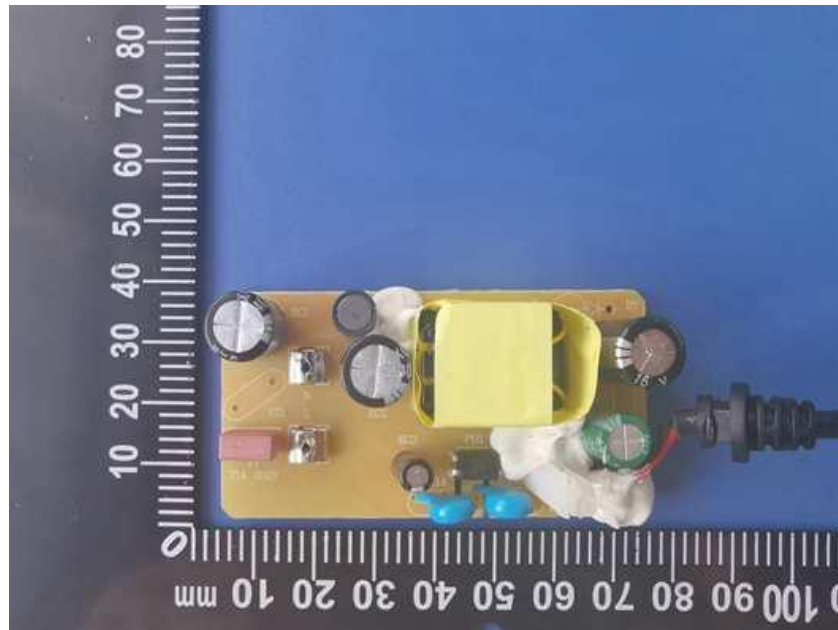
PCB top side view for model IVPxxxx-yyyyD (with D7, without LF3)



PCB top side view for model IVPxxxx-yyyyD (without D7A)



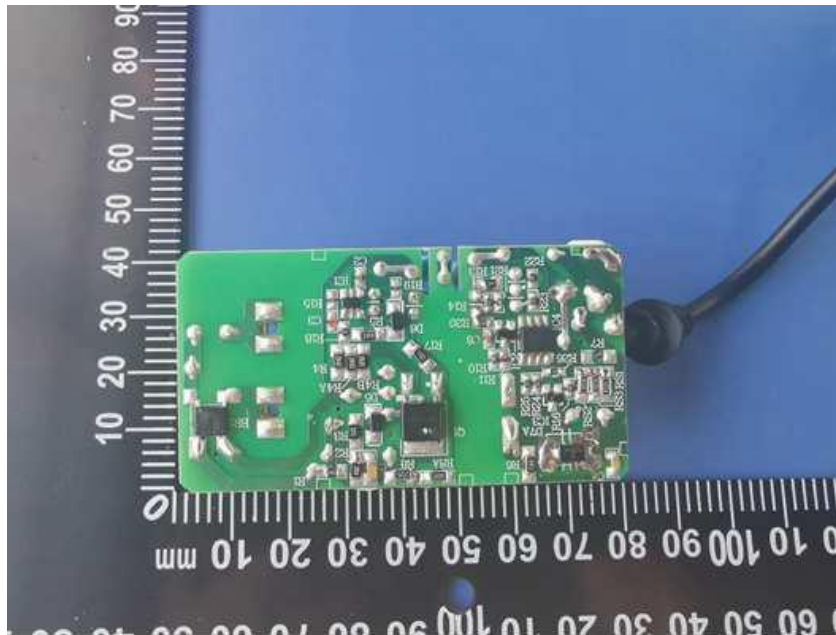
PCB top side view for model IVPxxxx-yyyyD (without D7, LF1)



PCB top side view for model IVPxxxx-yyyyD (without D7, with LF1)



PCB Bottom side view for model IVPxxxx-yyyyD (with D7A)



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