

# TEST REPORT

**Product Name** : AC-DC Converter  
**Model Number** : PM30X10-Sxx, PM32X15-Sxx,  
PM32X15-Sxx-W, PM32X15-Sxx-H2,  
PM32X15-Sxx-H4 (Variable xx can be 03,  
05, 09, 12, 15 and 24, indicate output  
voltage, eg:03=3.3Vdc, 24=24.0Vdc.)

**Prepared for** : Favotek Limited  
**Address** : Rooms 05-15, 13A/F., South Tower, World Finance Center,  
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**Report Number** : ED201111025E  
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Appendix I (Photos of EUT) (3 pages)



## TEST REPORT DESCRIPTION

Applicant : Favotek Limited  
 Manufacturer : Favotek Limited  
 Factory : Favotek Limited  
 EUT : AC-DC Converter  
 Model No. : PM30X10-Sxx, PM32X15-Sxx, PM32X15-Sxx-W, PM32X15-Sxx-H2,  
 PM32X15-Sxx-H4  
 (Variable xx can be 03, 05, 09, 12, 15 and 24, indicate output voltage,  
 eg:03=3.3Vdc, 24=24.0Vdc.)  
 Rating : See the page 10-11 model list for detail

### Measurement Procedure Used:

EN 55032: 2015+AC: 2016  
 EN 55035: 2017  
 EN 61000-3-2: 2014, EN 61000-3-3: 2013  
 (IEC 61000-4-2: 2008, IEC61000-4-3: 2006+A1:2007+A2: 2010, IEC 61000-4-4: 2012,  
 IEC 61000-4-5: 2014, IEC 61000-4-6: 2013, IEC 61000-4-11: 2004)

The device described above is tested by EMTEK(DONGGUAN) CO., LTD. and EMTEK (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK(DONGGUAN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the EN 55032, EN 61000-3-2, EN 61000-3-3 and EN 55035 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK(DONGGUAN) CO., LTD.

Date of Test : May 15, 2020 to May 21, 2020

*Bill Zhong*

Prepared by :

Bill Zhong / Editor

*Galen Xiao*

Reviewer :

Galen Xiao / Supervisor

*[Signature]* 

Approved & Authorized Signer :

Sam Lv / Manager

## Modified Information

Version	Summary	Revision Date	Report No.
Ver.1.0	Original Report	/	ED201111025E



## 1. DESCRIPTION OF STANDARDS AND RESULTS

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted Disturbance at Mains Terminals	EN 55032: 2015+AC: 2016	Table A.10	Pass
Radiated Disturbance	EN 55032: 2015+AC: 2016	Table A.4	Pass
Harmonic Current Emissions	EN 61000-3-2: 2014	Class A	N/A
Voltage Fluctuation and Flicker	EN 61000-3-3: 2013	Clause 5	Pass
IMMUNITY			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic Discharge (ESD)	IEC 61000-4-2: 2008	B	Pass
Radio-Frequency, Continuous Radiated Disturbance	IEC 61000-4-3: 2006 +A1: 2007+A2: 2010	A	Pass
EFT/B Immunity	IEC 61000-4-4: 2012	B	Pass
Surge Immunity	IEC 61000-4-5: 2014	B	Pass
Conducted RF Immunity	IEC 61000-4-6: 2013	A	Pass
Power Frequency Magnetic Field	IEC 61000-4-8: 2009	A	N/A
Voltage Dips, >95% Reduction	IEC 61000-4-11: 2004	B	Pass
Voltage Dips, 30% Reduction		B	Pass
Voltage Interruptions		B	Pass
Note: N/A is an abbreviation for Not Applicable.			

## 2. GENERAL INFORMATION

### 2.1 Description of Device (EUT)

EUT	: AC-DC Converter
Model Number	: PM30X10-Sxx, PM32X15-Sxx, PM32X15-Sxx-W, PM32X15-Sxx-H2, PM32X15-Sxx-H4 (Variable xx can be 03, 05, 09, 12, 15 and 24, indicate output voltage, eg:03=3.3Vdc, 24=24.0Vdc.) (Note: The model difference see model list ,Here PM32X15-S03, PM32X15-S24 was selected for full testing)
Power Supply for Test	: AC 230V 50Hz, AC 120V 60Hz
Operate Mode	: Full load, half load, empty load
Trade Mark	: <b>FAVOTEK</b>
Applicant	: Favotek Limited
Address	: Rooms 05-15, 13A/F., South Tower, World Finance Center, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.
Manufacturer	: Favotek Limited
Address	: Rooms 05-15, 13A/F., South Tower, World Finance Center, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.
Factory	: Favotek Limited
Address	: Rooms 05-15, 13A/F., South Tower, World Finance Center, Harbour City, 17 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong.
Date of sample received	: May 15, 2020
Date of Test	: May 15, 2020 to May 21, 2020



## 2.2 Description of Test Facility

### Site Description

EMC Lab : Accredited by CNAS, 2020.08.27  
 The certificate is valid until 2024.07.05  
 The Laboratory has been assessed and proved to be in compliance with CNAS/CL01:2018  
 The Certificate Registration Number is L3150

Name of Firm : EMTEK(DONGGUAN) CO., LTD.  
 Site Location : -1&2/F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China

## 2.3 Measurement Uncertainty

Test Item	Uncertainty
Conducted Emission Uncertainty	: 2.42dB
Radiated Emission Uncertainty (3m Chamber)	: 3.2dB (30M~1GHz Polarize: H) 3.3dB (30M~1GHz Polarize: V)
Uncertainty for Flicker test	: 0.07%
Uncertainty for Harmonic test	: 1.8%
Uncertainty for C/S Test	: 1.45(Using CDN Test) 2.37(Using EM Clamp Test)
Uncertainty for R/S Test	: 2.10dB(80MHz-1000MHz) 1.76dB(1000MHz-6000MHz)
Uncertainty for test site temperature and humidity	: 0.6℃ 4%

## 2.4 Description of Support Device

N/A

## 2.5 Model list

Product Differentiation					
<p>1) PM32X15-Sxx Serial's all models are identical in electrical, mechanical, physical construction except for transformer, model name, the voltage and current of output rating.</p> <ul style="list-style-type: none"> <li>● Different model have different components of both primary circuit and secondary circuit.</li> <li>● The secondary winding of the transformer may be different in each model.</li> <li>● All models have the same primary winding turnings.</li> </ul> <p>2) PM32X15-Sxx series use two PCB plates, but the material, copper thickness and plate thickness are the same.</p> <ul style="list-style-type: none"> <li>● The PCB wiring used by PM32X15-S03 and PM32X15-S05 is the same, but different from that used by other models in the series.</li> </ul> <p>3) PM32X15-Sxx-H2 Serial's all models are based on PM32X15-Sxx, But the PM32X15-Sxx-H2 have one more terminal strip, plastic base, PCB than PM32X15-Sxx.</p> <p>4) PM32X15-Sxx-H4 Serial's all models are based on PM32X15-Sxx-H2, But the PM32X15-Sxx-H4 have one more metal base than PM32X15-Sxx-H2.</p> <p>5) PM32X15-Sxx-W Serial's all models are based on PM32X15-Sxx, But the PM32X15-Sxx-W use leads instead of terminals.</p> <p>6) PM30X10-Sxx Serial's all models are based on PM32X15-Sxx, Only the name are different.</p>					
For models PM30X10-Sxx, PM32X15-Sxx, PM32X15-Sxx-W, PM32X15-Sxx-H2, PM32X15-Sxx-H4					
Part number	Input rating	Output voltage	Output current	Output power	Transformer type
PM30X10-S03 PM32X15-S03 PM32X15-S03-W PM32X15-S03-H2 PM32X15-S03-H4	100-277 Vac 0.45A 50-60H Z.	3.3V	4A	13.2W	51500810 (A/0~A/5)
PM30X10-S05 PM32X15-S05 PM32X15-S05-W PM32X15-S05-H2 PM32X15-S05-H4		5V	3A	15W	
PM30X10-S09 PM32X15-S09 PM32X15-S09-W PM32X15-S09-H2 PM32X15-S09-H4		9V	1.67A	15.03W	51500811(A/0~A/5)
PM30X10-S12 PM32X15-S12 PM32X15-S12-W PM32X15-S12-H2 PM32X15-S12-H4		12V	1.25A	15W	51500815 (A/0~A/5)

PM30X10-S15 PM32X15-S15 PM32X15-S15-W PM32X15-S15-H2 PM32X15-S15-H4		15V	1A	15W	
PM30X10-S24 PM32X15-S24 PM32X15-S24-W PM32X15-S24-H2 PM32X15-S24-H4		24V	0.625A	15W	51500816 (A/0~A/5)

### 3. MEASURING DEVICES AND TEST EQUIPMENT

#### 3.1 For Power Line Conducted Emission

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde&Schwarz	ESCI	100137	May 23, 2019	1 Year
2.	L.I.S.N.	Rohde&Schwarz	ENV216	101209	May 23, 2019	1 Year
3.	RF Switching Unit	CDS	RSU-M2	38401	May 23, 2019	1 Year
4	Artificial Mains Network	Schwarzbeck	NNLK-8121-641	8121-641	May 23, 2019	1 Year

#### 3.2 For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	101415	May 23, 2019	1 Year
2.	Bilog Antenna	Schwarzbeck	VULB9163	9163-143	May 23, 2019	1 Year
3.	Power Amplifier	HP	8447F	EED184	May 23, 2019	1 Year
4.	Cable	N/A	CBL-26	N/A	May 23, 2019	1 Year
5.	Cable	N/A	CBL-26	N/A	May 23, 2019	1 Year
6.	Cable	N/A	CBL-26	N/A	May 23, 2019	1 Year
7.	Signal Analyzer	R&S	FSV30	103040	May 23, 2019	1 Year
8.	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1272	May 23, 2019	1 Year
9.	Power Amplifier	LUNAR EM	LNA1G18-40	J10100000081	May 23, 2019	1 Year
10.	Cable	H+S	RG 233/U	525178	May 23, 2019	1 Year
11.	Cable	H+S	RG 233/U	528948 WP	May 23, 2019	1 Year
12.	Cable	H+S	RG 233/U	525179	May 23, 2019	1 Year

#### 3.3 For Harmonic / Flicker Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power Frequency Test System	TESEQ	5001IX-CTS-400-SCH	1805A03008	May 23, 2019	1 Year
2.	AC Frequency Conversion Power	TESEQ	100-CTS-230-TSQ	1804A03259	May 23, 2019	1 Year
3.	PC	LENOVO	T2900D	SS12485803	May 23, 2019	1 Year

#### 3.4 For Electrostatic Discharge Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	ESD Tester	TESEQ	NSG437	409	May 23, 2019	1 Year

### 3.5 For RF Strength Susceptibility Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Signal Generator	Agilent	N5181A	MY50145187	May 23, 2019	1 Year
2	RF Power Meter.	BOONTON	4232A	10539	May 23, 2019	1 Year
3	50ohm Diode Power Sensor	BOONTON	51011EMC	34236/34238	May 23, 2019	1 Year
4	Field Strength Meter	DARE	RSS1006A	10I00037SO22	May 23, 2019	1 Year
5	50ohm Diode Power Sensor	BOONTON	51011EMC	36164	May 23, 2019	1 Year
6	Power Amplifier	MILMEGA	80RF1000-175	1059345	May 23, 2019	1 Year
7	Power Amplifier	MILMEGA	AS0102-55	1018770	May 23, 2019	1 Year
8	Power Amplifier	MILMEGA	AS1860-50	1059346	May 23, 2019	1 Year
9	Log.-Per. Antenna	Schwarzbeck	VULP 9118E	811	May 23, 2019	1 Year
10	Broad-Band Horn Antenna	Schwarzbeck	STLP 9149	9149-227	May 23, 2019	1 Year
11	Multi-function interface system	DARE	CTR1009B	12I00250SNO72	N/A	N/A
12	Automatic switch group	DARE	RSW1004A	N/A	N/A	N/A

### 3.6 For Electrical Fast Transient/Burst Immunity Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Three-in-one tester	HTEC	HCOMPACT1	190305	May 23, 2019	1 Year
2	Coupling Clamp	EM TEST	HFK	0605-10	May 23, 2019	1 Year

### 3.7 For Surge Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Three-in-one tester	HTEC	HCOMPACT1	190305	May 23, 2019	1 Year

### 3.8 For Injected Currents Susceptibility Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Simulator	EM TEST	CWS500C	0900-12	May 23, 2019	1 Year
2.	CDN	EM TEST	CDN-M2	5100100100	May 23, 2019	1 Year
3.	CDN	EM TEST	CDN-M3	0900-11	May 23, 2019	1 Year
4.	Injection Clamp	EM TEST	F-2031-23MM	368	May 23, 2019	1 Year
5.	Attenuator	EM TEST	ATT6	0010222A	May 23, 2019	1 Year

### 3.9 For Voltage Dips and Interruptions Test

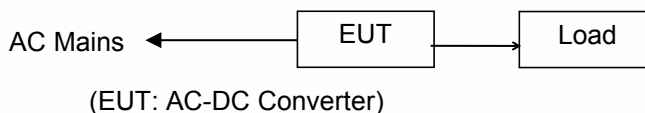
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Three-in-one tester	HTEC	HCOMPACT1	190305	May 23, 2019	1 Year



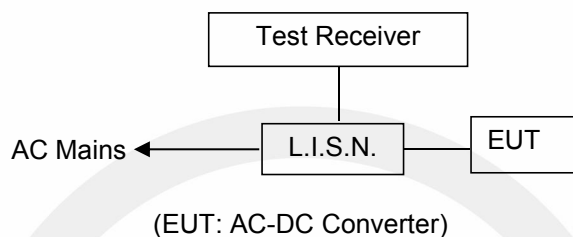
## 4. POWER LINE CONDUCTED MEASUREMENT

### 4.1 Block Diagram of Test Setup

#### 4.1.1 Block diagram of connection between the EUT and simulators



#### 4.1.2 Block diagram of test setup



### 4.2 Conducted Power Line Emission Measurement Standard and Limits

#### 4.2.1 Standard:

EN 55032: 2015+AC: 2016

#### 4.2.2 Limits

Frequency	At mains terminals (dBmV)	
	Quasi-peak Level	Average Level
150KHz ~ 0.5MHz	66 ~ 56*	56 ~ 46*
0.5MHz ~ 5MHz	56	46
5.0MHz ~ 30MHz	60	50

1. At the transition frequency the lower limit applies.
2. \* decreasing linearly with logarithm of the frequency.

### 4.3 EUT Configuration on Measurement

The configuration of the EUT is same as Section 4.1.

### 4.4 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 4.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in measuring mode (Full load, half load, empty load) and measure it.

#### 4.5 Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground and connected to the AC mains through a Line Impedance Stabilization Network (L.I.S.N.). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission according to the EN 55032 regulations during conducted emission measurement. And the voltage probe had been used for the load terminals measurement according to the EN 55032 standard.

The bandwidth of the test receiver (ESCI) is set at 200Hz in 9K~150KHz range and 9KHz in 150K~30MHz range.

The frequency range from 150KHz to 30MHz is checked.

#### 4.6 Measurement Results

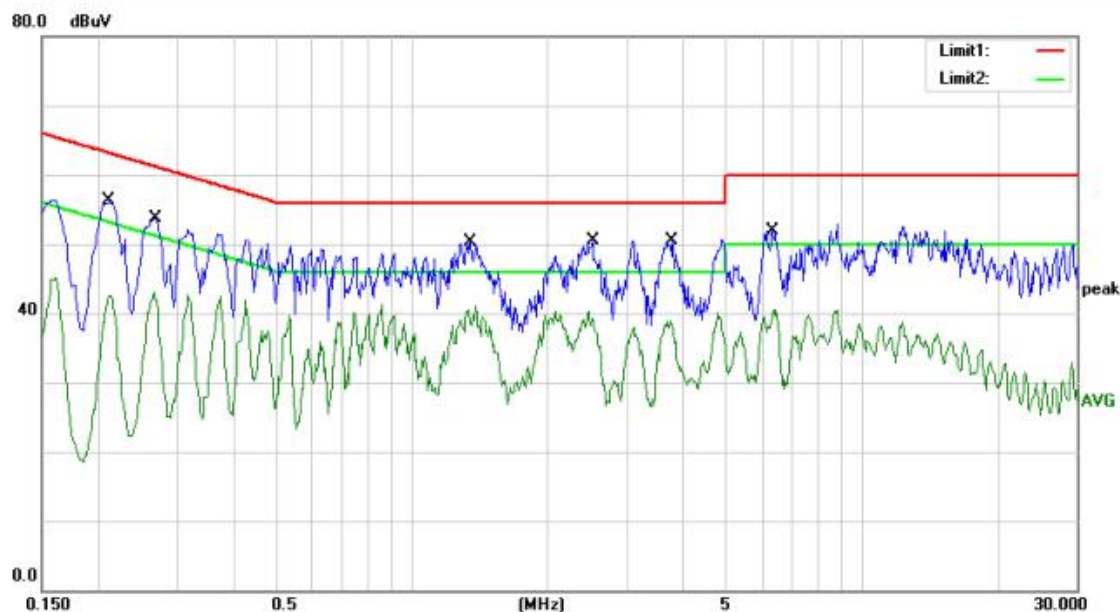
**PASS.**

The frequency range from 150KHz to 30MHz is investigated.

We test at AC 230V 50Hz, AC 120V 60 Hz, and the worst test data on mode(Full load) at AC 230V 50Hz are attach in follow page.



## PM32X15-S03



Site site #1

Phase: **L1**

Temperature: 25

Limit: EN55032 class B\_QP (CE)

Power: AC 230V/50Hz

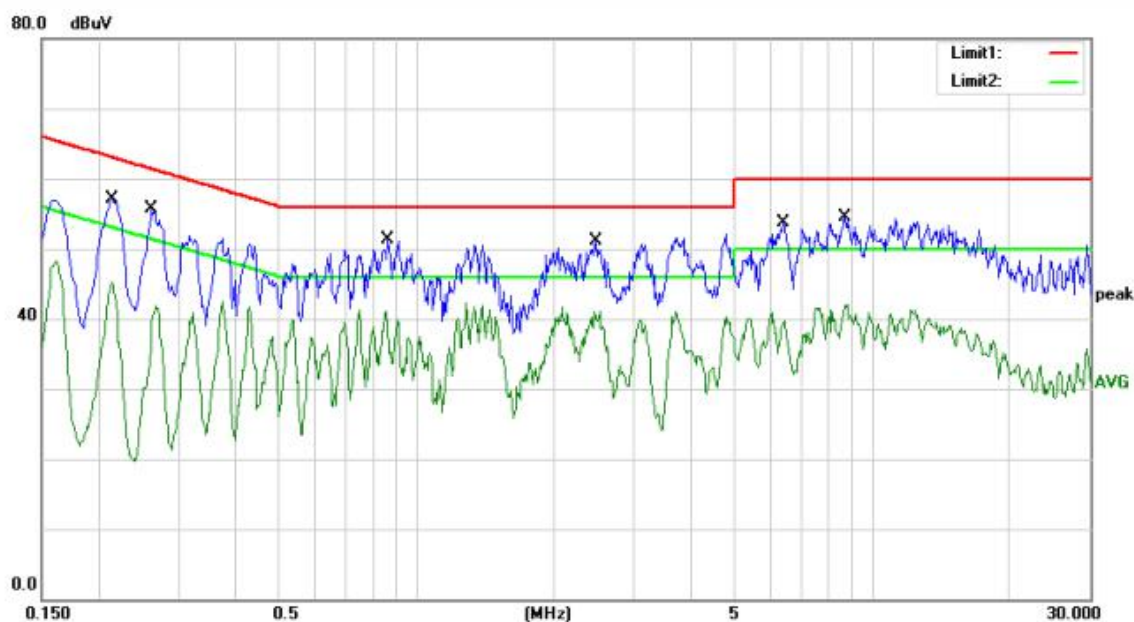
Humidity: 55 %

Mode: Full Load

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.2116	46.17	10.04	56.21	63.14	-6.93	QP	
2		0.2116	32.55	10.04	42.59	53.14	-10.55	AVG	
3		0.2700	43.67	10.07	53.74	61.12	-7.38	QP	
4		0.2700	32.95	10.07	43.02	51.12	-8.10	AVG	
5		1.3460	40.15	10.18	50.33	56.00	-5.67	QP	
6	*	1.3460	31.02	10.18	41.20	46.00	-4.80	AVG	
7		2.5140	40.35	10.18	50.53	56.00	-5.47	QP	
8		2.5140	30.08	10.18	40.26	46.00	-5.74	AVG	
9		3.7860	40.34	10.18	50.52	56.00	-5.48	QP	
10		3.7860	28.70	10.18	38.88	46.00	-7.12	AVG	
11		6.3420	41.75	10.19	51.94	60.00	-8.06	QP	
12		6.3420	30.29	10.19	40.48	50.00	-9.52	AVG	

\*:Maximum data    x:Over limit    !:over margin    Comment: Factor build in receiver.    Operator: Jason

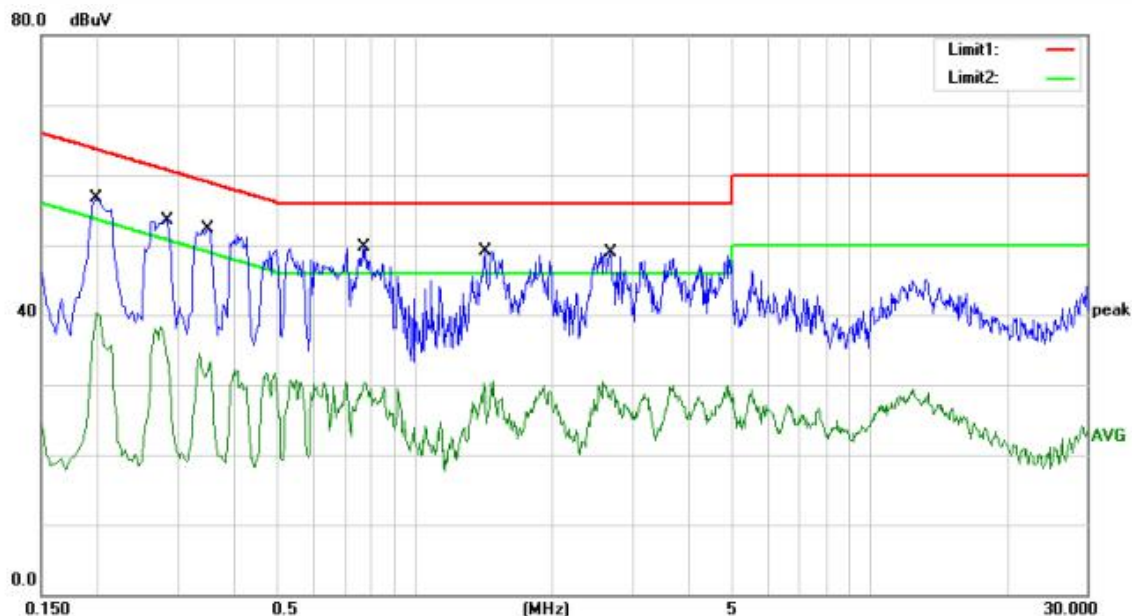


Site site #1 Phase: **N** Temperature: 25  
 Limit: EN55032 class B\_QP (CE) Power: AC 230V/50Hz Humidity: 55 %  
 Mode: Full Load  
 Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.2140	47.02	10.04	57.06	63.05	-5.99	QP	
2		0.2140	35.17	10.04	45.21	53.05	-7.84	AVG	
3		0.2620	45.56	10.06	55.62	61.37	-5.75	QP	
4		0.2620	31.76	10.06	41.82	51.37	-9.55	AVG	
5	*	0.8620	41.11	10.18	51.29	56.00	-4.71	QP	
6		0.8620	30.99	10.18	41.17	46.00	-4.83	AVG	
7		2.4780	40.87	10.18	51.05	56.00	-4.95	QP	
8		2.4780	30.91	10.18	41.09	46.00	-4.91	AVG	
9		6.3660	43.59	10.19	53.78	60.00	-6.22	QP	
10		6.3660	30.62	10.19	40.81	50.00	-9.19	AVG	
11		8.6900	44.30	10.20	54.50	60.00	-5.50	QP	
12		8.6900	31.99	10.20	42.19	50.00	-7.81	AVG	

\*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Jason

## PM32X15-S24

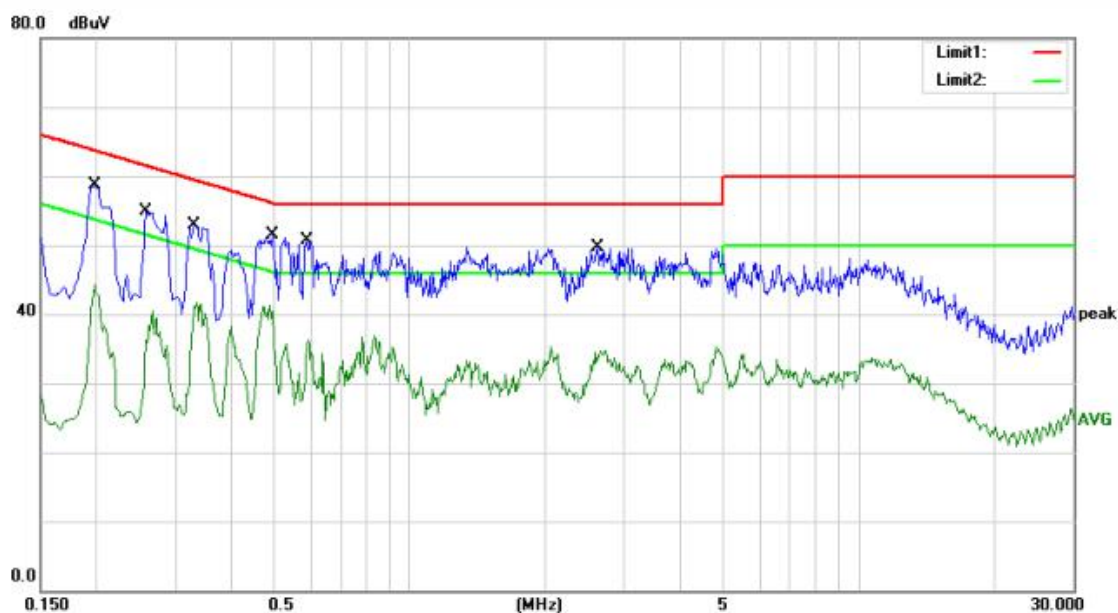


Site site #1  
 Limit: EN55032 class B\_QP (CE)  
 Mode: Full Load  
 Note:

Phase: **L1**  
 Power: AC 230V/50Hz  
 Temperature: 25  
 Humidity: 55 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	46.62	10.03	56.65	63.69	-7.04	QP	
2		0.1980	30.30	10.03	40.33	53.69	-13.36	AVG	
3		0.2860	43.50	10.08	53.58	60.64	-7.06	QP	
4		0.2860	28.18	10.08	38.26	50.64	-12.38	AVG	
5		0.3500	42.29	10.11	52.40	58.96	-6.56	QP	
6		0.3500	24.33	10.11	34.44	48.96	-14.52	AVG	
7	*	0.7740	39.46	10.18	49.64	56.00	-6.36	QP	
8		0.7740	20.13	10.18	30.31	46.00	-15.69	AVG	
9		1.4220	38.94	10.18	49.12	56.00	-6.88	QP	
10		1.4220	20.42	10.18	30.60	46.00	-15.40	AVG	
11		2.6820	38.77	10.18	48.95	56.00	-7.05	QP	
12		2.6820	20.25	10.18	30.43	46.00	-15.57	AVG	

\*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Jason



Site site #1 Phase: **N** Temperature: 25  
 Limit: EN55032 class B\_QP (CE) Power: AC 230V/50Hz Humidity: 55 %  
 Mode: Full Load  
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	48.63	10.03	58.66	63.69	-5.03	QP	
2		0.1980	34.33	10.03	44.36	53.69	-9.33	AVG	
3		0.2580	44.89	10.06	54.95	61.50	-6.55	QP	
4		0.2580	30.50	10.06	40.56	51.50	-10.94	AVG	
5		0.3300	42.89	10.10	52.99	59.45	-6.46	QP	
6		0.3300	31.63	10.10	41.73	49.45	-7.72	AVG	
7	*	0.4940	41.31	10.18	51.49	56.10	-4.61	QP	
8		0.4940	31.10	10.18	41.28	46.10	-4.82	AVG	
9		0.5900	40.52	10.18	50.70	56.00	-5.30	QP	
10		0.5900	26.14	10.18	36.32	46.00	-9.68	AVG	
11		2.6180	39.54	10.18	49.72	56.00	-6.28	QP	
12		2.6180	24.62	10.18	34.80	46.00	-11.20	AVG	

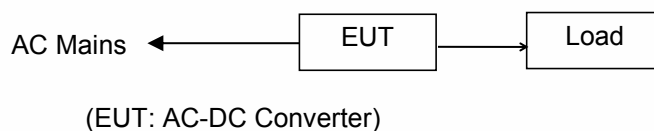
\*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Jason



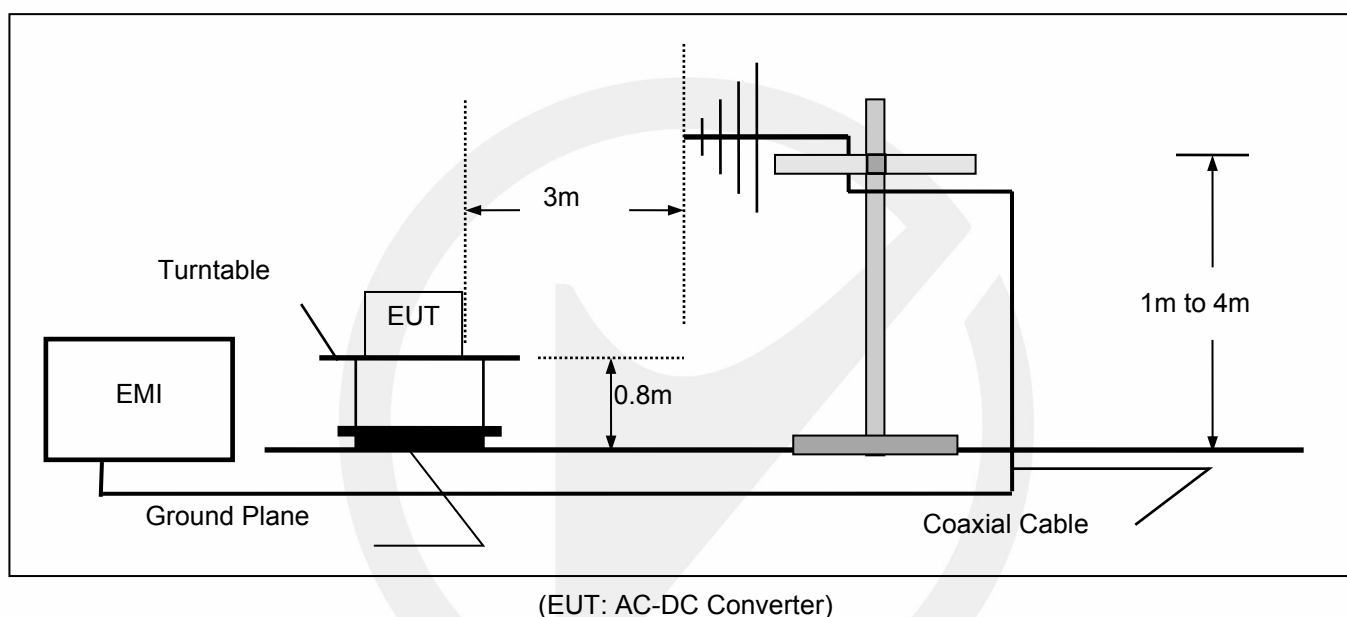
## 5. RADIATED EMISSION MEASUREMENT

### 5.1 Block Diagram of Test

#### 5.1.1 Block diagram of connection between the EUT and simulators



#### 5.1.2 Block diagram of test setup (In chamber)



### 5.2 Measuring Standard

EN 55032: 2015+AC: 2016

### 5.3 Radiated Emission Limits

All emanations from a device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

#### Limits below 1GHz

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT (dBmV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

## 5.4 EUT Configuration on Test

The EN 55032 regulations test method must be used to find the maximum emission during radiated emission measurement.

EUT : AC-DC Converter  
Model Number : PM32X15-S03, PM32X15-S24

## 5.5 Operating Condition of EUT

Step 1: Turn on the power.

Step 2: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 5.6 Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meter to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarizations of the antenna are set on test.

The bandwidth of the Receiver (ESCI) is set at 120kHz.

## 5.7 Test Results

**PASS.**

The frequency range from 30MHz to 1000MHz is investigated.

We test at AC 230V 50Hz and AC 120V 60 Hz, and the worst test data on mode(Full load) at AC 230V 50Hz are attach in follow page.

## PM32X15-S03



Site Chamber #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)EN55032\_class B\_3m

Power: AC 230V/50Hz

Humidity: 55 %

Mode: Full Load

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		35.6240	37.54	-18.33	19.21	40.00	-20.79	QP		
2		56.1974	35.36	-16.14	19.22	40.00	-20.78	QP		
3		99.1797	42.80	-18.69	24.11	40.00	-15.89	QP		
4		106.3850	43.46	-18.23	25.23	40.00	-14.77	QP		
5	*	127.2176	47.58	-21.19	26.39	40.00	-13.61	QP		
6		239.9873	36.51	-15.75	20.76	47.00	-26.24	QP		

\*:Maximum data x:Over limit !:over margin

Operator: Lian



Site Chamber #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)EN55032\_class B\_3m

Power: AC 230V/50Hz

Humidity: 55 %

Mode: Full Load

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table
		MHz	Level	Factor	ment			Height	Degree
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree
1		30.0000	50.36	-18.76	31.60	40.00	-8.40	QP	
2	*	35.4992	53.71	-18.40	35.31	40.00	-4.69	QP	
3		106.0126	46.52	-18.22	28.30	40.00	-11.70	QP	
4		128.5630	45.80	-21.26	24.54	40.00	-15.46	QP	
5		199.9855	41.35	-17.25	24.10	40.00	-15.90	QP	
6		962.1622	28.63	-0.29	28.34	47.00	-18.66	QP	

\*:Maximum data    x:Over limit    !:over margin

Operator: Lian



## PM32X15-S24



Site Chamber #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)EN55032\_class B\_3m

Power: AC 230V/50Hz

Humidity: 55 %

Mode: Full Load

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		33.6802	42.36	-18.96	23.40	40.00	-16.60	QP			
2		54.8348	36.84	-15.93	20.91	40.00	-19.09	QP			
3		77.8654	42.37	-21.50	20.87	40.00	-19.13	QP			
4	*	86.5030	44.50	-20.88	23.62	40.00	-16.38	QP			
5		91.1746	42.83	-19.62	23.21	40.00	-16.79	QP			
6		141.3298	44.81	-21.54	23.27	40.00	-16.73	QP			

\*:Maximum data    x:Over limit    !:over margin

Operator: Lian



Site Chamber #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)EN55032\_class B\_3m

Power: AC 230V/50Hz

Humidity: 55 %

Mode: Full Load

Note:

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	30.0000	54.36	-18.76	35.60	40.00	-4.40	QP		
2		53.3180	41.70	-15.74	25.96	40.00	-14.04	QP		
3		69.3568	45.38	-19.39	25.99	40.00	-14.01	QP		
4		76.2442	48.60	-21.44	27.16	40.00	-12.84	QP		
5		86.5030	49.53	-20.88	28.65	40.00	-11.35	QP		
6		107.8877	40.80	-18.30	22.50	40.00	-17.50	QP		

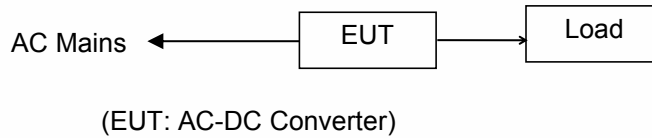
\*:Maximum data    x:Over limit    !:over margin

Operator: Lian

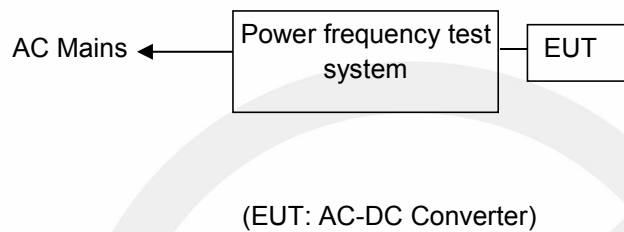
## 6. HARMONIC CURRENT MEASUREMENT

### 6.1 Block Diagram of Test Setup

#### 6.1.1 Block diagram of connection between the EUT and simulators



#### 6.1.2 Block Diagram of Harmonic Test Setup



### 6.2 Measuring Standard

EN 61000-3-2: 2014 Class A Power<75W

### 6.3 Operating Condition of EUT

Same as Section 4.4 except that the test setup replaced by Section 6.1.

### 6.4 Test Results

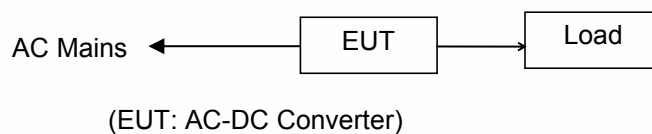
**Not Applicable.**

Because power of EUT is less than 75W, according to standard EN61000-3-2, Harmonics Current is not required.

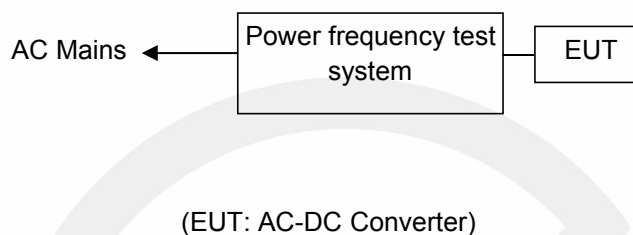
## 7. VOLTAGE FLUCTUATIONS & FLICKER MEASUREMENT

### 7.1 Block Diagram of Test Setup

#### 7.1.1 Block diagram of connection between the EUT and simulators



#### 7.1.2 Block Diagram of Flicker Test Setup



### 7.2 Measuring Standard

EN 61000-3-3: 2013

### 7.3 Operating Condition of EUT

Same as Section 4.4 except that the test setup replaced by Section 7.1.

### 7.4 Test Results

**PASS.**

Please refer to the following pages.

## Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

EUT: PM32X15-S03  
Test category: dt,dmax,dc and Pst (European limits)  
Test date: 2020-5-18 Start time: 10:29:06 End time: 10:39:33  
Test duration (min): 10 Data file name: F-000624.cts\_data  
Comment: Full load  
Customer: Customer information

Tested by: HUANG

Test Margin: 100

End time: 10:39:33

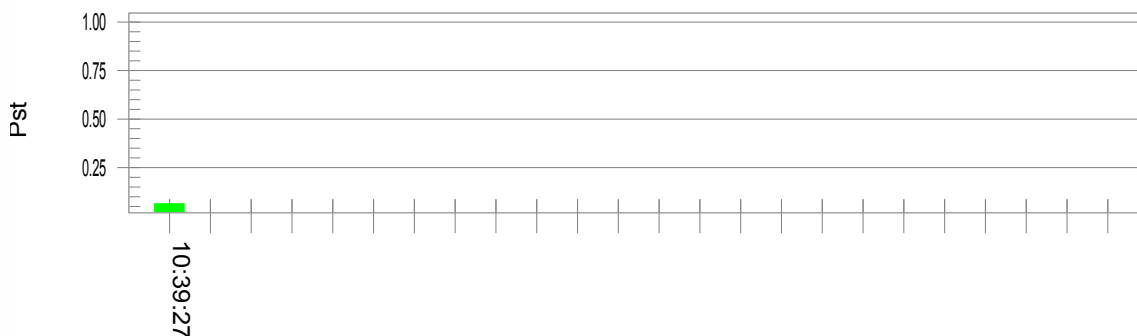
Data file name: F-000624.cts\_data

Test Result: Pass

Status: Test Completed

### Pst<sub>i</sub> and limit line

### European Limits



### Plt and limit line



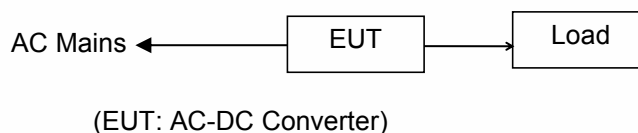
### Parameter values recorded during the test:

Vrms at the end of test (Volt):	229.84		
T-max (mS):	0	Test limit (mS):	500.0 Pass
Highest dc (%):	0.00	Test limit (%):	3.30 Pass
Highest dmax (%):	0.00	Test limit (%):	4.00 Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000 Pass

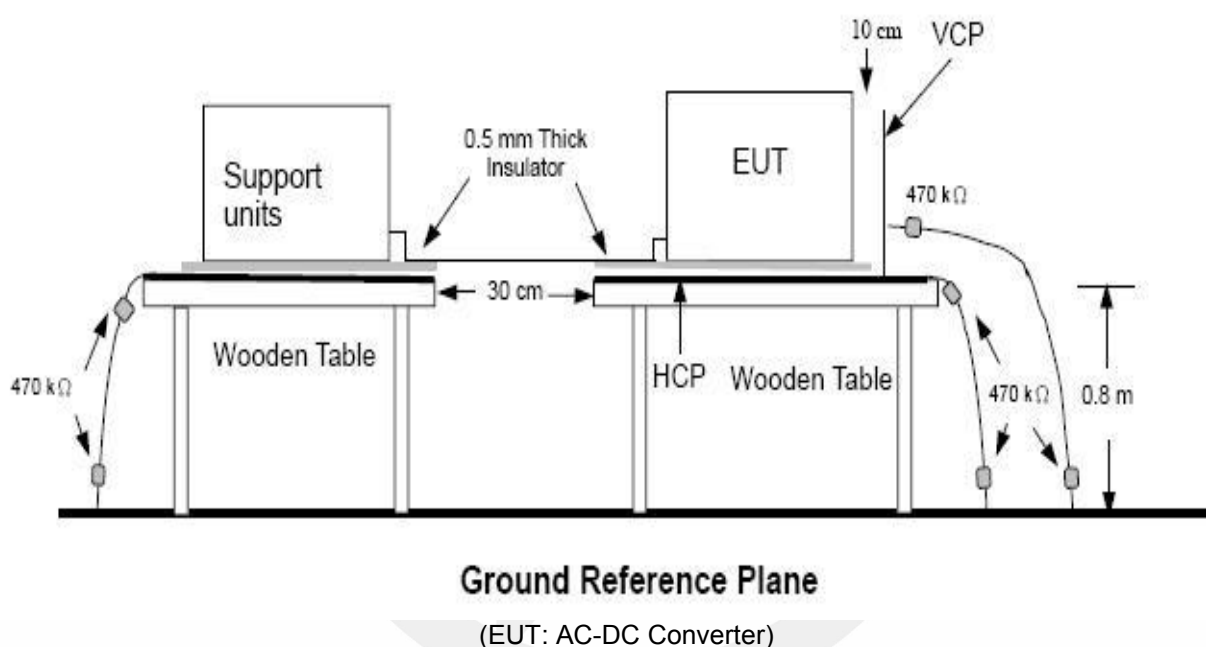
## 8. ELECTROSTATIC DISCHARGE TEST

### 8.1 Block Diagram of Test Setup

#### 8.1.1 Block diagram of connection between the EUT and simulators



#### 8.1.2 Block Diagram of ESD Test Setup



### 8.2 Test Standard

EN 55035: 2017

(IEC 61000-4-2: 2008 (Severity Level: 3 /Contact Discharge:  $\pm 6\text{KV}$ ; Severity Level: 3 / Air Discharge:  $\pm 8\text{KV}$ ))

### 8.3 Severity Levels and Performance Criterion

#### 8.3.1 Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	$\pm 2$	$\pm 2$
2.	$\pm 4$	$\pm 4$
3.	$\pm 6$	$\pm 8$
4.	$\pm 8$	$\pm 15$
X	Special	Special

**Performance criterion: B**

## 8.4 EUT Configuration

The configuration of EUT is listed in Section 8.1.

## 8.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 8.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 8.6 Test Procedure

### 8.6.1 Air Discharge

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 25 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

### 8.6.2 Contact Discharge

All the procedure shall be same as Section 8.6.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

### 8.6.3 Indirect discharge for horizontal coupling plane

At least 20 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

### 8.6.4 Indirect discharge for vertical coupling plane

At least 20 single discharge shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

## 8.7 Test Results

**PASS.**

Please refer to the following page.

# Electrostatic Discharge Test Results

EMTEK(DONGGUAN) CO., LTD.

Applicant : Favotek Limited	Test Date : May 19, 2020
EUT : AC-DC Converter	Temperature : 23℃
M/N for test : PM32X15-S03, PM32X15-S24	Humidity : 55%
Power Supply : AC 230V/50Hz	Test Engineer: Huang
Test Mode : Full load, half load, empty load	Criterion : B

Contact Discharge:±6KV Air Discharge:±8KV # For each point positive 25 times and negative 25 times		
Location	Kind A-Air Discharge C-Contact Discharge	Result
HCP	C	PASS
VCP	C	PASS
Enclosure	A	PASS
Remark:	Test Equipment : ESD Tester (TESEQ, 409)	

Discharge should be considered on Contact and Air and Horizontal Coupling Plane (HCP) and Vertical Coupling Plane (VCP).





## 9.3 Severity Levels and Performance Criterion

### 9.3.1 Severity level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X	Special

**Performance criterion: A**

## 9.4 EUT Configuration

The configurations of EUT are listed in Section 9.1.

## 9.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 9.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 9.6 Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarizations of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor EUT screen. All the scanning conditions are as follows:

Condition of Test	Remarks
1. Fielded Strength	10 V/m (Severity Level 3)
2. Radiated Signal	Unmodulated
Scanning Frequency	80 - 6000 MHz
3. Dwell time of radiated	0.0015 decade/s
4. Waiting Time	1 Sec.

## 9.7 Test Results

**PASS.**

These test result outsourced to EMTEK (SHENZHEN) CO., LTD.

Please refer to the following page.

# RF Field Strength Susceptibility Test Results

EMTEK(SHENZHEN) CO., LTD.

Applicant: Favotek Limited Test Date : May 19, 2020

EUT : AC-DC Converter Temperature : 23°C

M/N : PM32X15-S03, PM32X15-S24 Humidity : 55%

Field Strength: 10 V/m Criterion : A

Power Supply: AC 230V/50Hz

Frequency Range: 80 - 6000MHz

Test Engineer: Tom

Modulation: ☒ AM ☐ Pulse ☐ none 1 KHz 80%

Test Mode : Full load, half load, empty load

Frequency Range : 80 - 6000MHz

Steps

1 %

Horizontal

Vertical

Front

PASS

PASS

Right

PASS

PASS

Rear

PASS

PASS

Left

PASS

PASS

## Test Equipment :

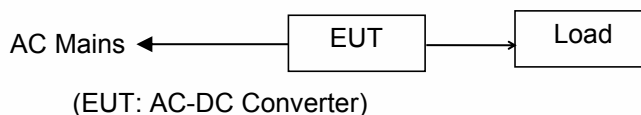
1. Signal Generator : N5181A (Agilent)
2. Power Amplifier : 80RF1000-175 (MILMEGA)& AS0102-55 (MILMEGA)& AS1860-50 (MILMEGA)
3. Log.-Per. Antenna: VULP 9118E(SCHWARZBECK)
4. Broad-Band Horn Antenna: STLP 9149 (SCHWARZBECK)
5. RF Power Meter. Dual Channel : 4232A (BOONTON)
6. Field Strength Meter: RSS1006A (DARE)

Note: EUT was tested under Field Strength: 10 V/m.

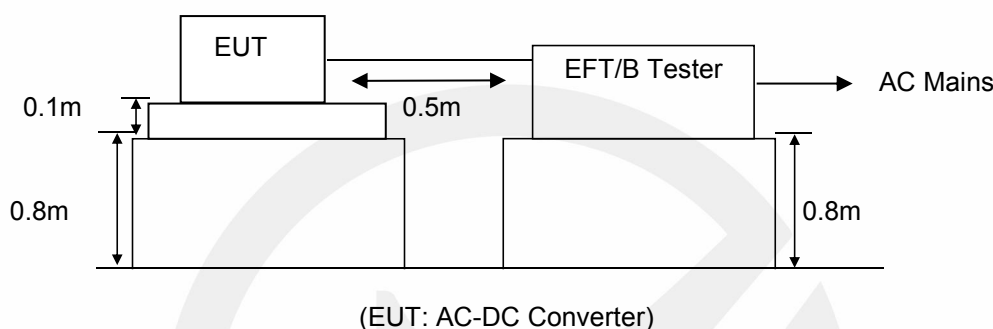
## 10. ELECTRICAL FAST TRANSIENT/BURST TEST

### 10.1 Block Diagram of Test Setup

#### 10.1.1 Block Diagram of connection between the EUT and simulators



#### 10.1.2 Block Diagram of EFT Test Setup



### 10.2 Test Standard

EN 55035: 2017  
(IEC 61000-4-4: 2012, Severity Level: Level 3: ±2KV)

### 10.3 Severity Levels and Performance Criterion

#### 10.3.1 Severity level

Open circuit output test voltage and repetition rate of the impulses				
Level	On power port, PE		On I/O (Input/Output) Signal data and control ports	
	Voltage peak KV	Repetition rate KHz	Voltage peak KV	Repetition rate KHz
1.	0.5 KV	5 or 100	0.25 KV	5 or 100
2.	1 KV	5 or 100	0.5 KV	5 or 100
3.	2 KV	5 or 100	1 KV	5 or 100
4.	4 KV	5 or 100	2 KV	5 or 100
X	Special	Special	Special	Special

NOTE 1 Use of 5 KHz repetition rates is traditional; however, 100 KHz is closer to reality. Product committees should determine which frequencies are relevant for specific products or product types.

NOTE 2 With some products, there may be no clear distinction, between power ports and I/O ports, in which case it is up to product committees to make this determination for test purposes.

“X” is an open level. The level has to be specified in the dedicated equipment specification.

**Performance criterion: B**

## 10.4 EUT Configuration

The configurations of EUT are listed in Section 10.1.

## 10.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 10.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 10.6 Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

### **For input and output AC power ports:**

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 mins.

### **For signal lines and control lines ports:**

No I/O ports. It's unnecessary to test.

## 10.7 Test Results

**PASS.**

Please refer to the following page.

## Electrical Fast Transient/Burst Test Results

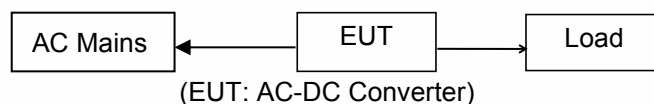
EMTEK(DONGGUAN) CO., LTD.

Standard :	<input checked="" type="checkbox"/> IEC 61000-4-4 <input type="checkbox"/> EN 61000-4-4	Result : <input checked="" type="checkbox"/> PASS / <input type="checkbox"/> FAIL
Applicant : Favotek Limited		
EUT : AC-DC Converter		
M/N : PM32X15-S03, PM32X15-S24		
Power Supply: AC 230V/50Hz		
Criterion : B		
Ambient Condition : 23 °C 55% RH		
Operation Mode : Full load, half load, empty load		
Line : <input checked="" type="checkbox"/> AC Mains	Line : <input type="checkbox"/> Signal <input type="checkbox"/> I/O Cable	
Coupling : <input checked="" type="checkbox"/> Direct	Coupling : <input type="checkbox"/> Capacitive	
Test Time : 120s		
Line	Test Voltage	Result (+) Result (-)
L	2KV	PASS PASS
N	2KV	PASS PASS
PE		
L、N	2KV	PASS PASS
L、PE		
N、PE		
L、N、PE		
Signal Line		
DC Line		
Note:		
Test Equipment	Burst Tester Model : UCS500M6B	

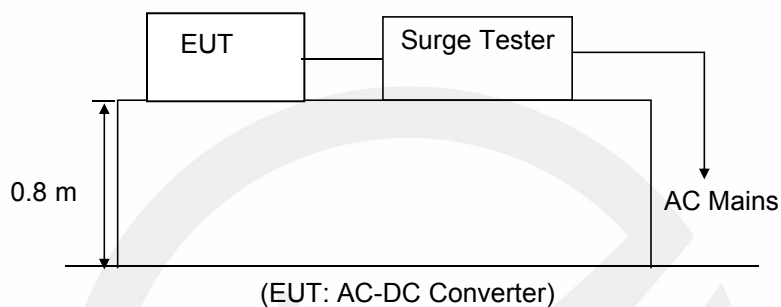
## 11. SURGE IMMUNITY TEST

### 11.1 Block Diagram of Test Setup

#### 11.1.1 Block Diagram of the EUT



#### 11.1.2 Surge Test Setup



### 11.2 Test Standard

EN 55035: 2017

(IEC 61000-4-5: 2014, Severity Level: Line to Line: Level 2, 1.0KV)

## 11.3 Severity Levels and Performance Criterion

### 11.3.1 Severity level

Severity Level	Open-Circuit Test Voltage KV
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

**Performance criterion: B**

## 11.4 EUT Configuration

The configurations of EUT are listed in Section 11.1.

## 11.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 11.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 11.6 Test Procedure

- 1) Set up the EUT and test generator as shown on Section 11.1.2.
- 2) For line to line coupling mode, provide a 1.0KV, 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 4) Different phase angles are done individually.
- 5) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

## 11.7 Test Results

**PASS.**

Please refer to the following page.



# Surge Immunity Test Results

EMTEK(DONGGUAN) CO., LTD.

Applicant : <u>Favotek Limited</u>				Test Date : <u>May 19, 2020</u>	
EUT : <u>AC-DC Converter</u>				Temperature : <u>23℃</u>	
M/N : <u>PM32X15-S03, PM32X15-S24</u>				Humidity : <u>55%</u>	
Power Supply : <u>AC 230V/50Hz</u>				Test Engineer : <u>Huang</u>	
Test Mode : <u>Full load, half load, empty load</u>				Criterion : <u>B</u>	

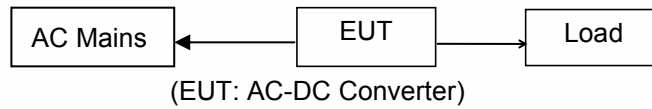
Location	Polarity	Phase Angle	No of Pulse	Pulse Voltage (KV)	Result
L-N	±	0°	5	1.0	PASS
	±	90°	5	1.0	PASS
	±	180°	5	1.0	PASS
	±	270°	5	1.0	PASS
L-PE					
N-PE					

Remark:	Test Equipment : Surge Generator VCS 500M6T
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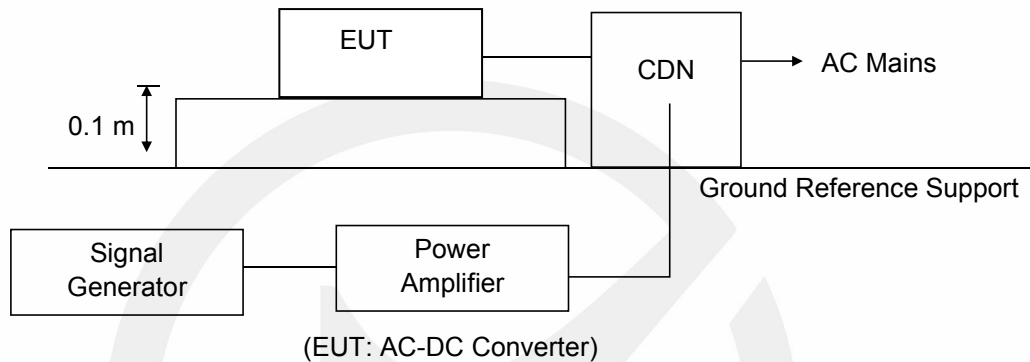
## 12. INJECTED CURRENTS SUSCEPTIBILITY TEST

### 12.1 Block Diagram of Test Setup

#### 12.1.1 Block Diagram of the EUT



#### 12.1.2 Block Diagram of Test Setup



### 12.2 Test Standard

EN 55035: 2017  
(IEC 61000-4-6: 2013, Severity Level 3: 10V (rms))

### 12.3 Severity Levels and Performance Criterion

#### 12.3.1 Severity level

Level	Field Strength V
1.	1
2.	3
3.	10
X	Special

**Performance criterion: A**

### 12.4 EUT Configuration

The configurations of EUT are listed in Section 12.1.

### 12.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 12.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

## 12.6 Test Procedure

- 1) Set up the EUT, CDN and test generators as shown on Section 12.1.2.
- 2) Let the EUT work in test mode and measure it.
- 3) The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150KHz to 80MHz using 10V signal level, and with the disturbance signal 80% amplitude modulated with a 1KHz sine wave.
- 7) The rate of sweep shall not exceed  $1.5 \times 10^{-3}$  decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

## 12.7 Test Results

**PASS.**

These test result outsourced to EMTEK(SHENZHEN) CO., LTD.

Please refer to the following page.

## Injected Currents Susceptibility Test Results

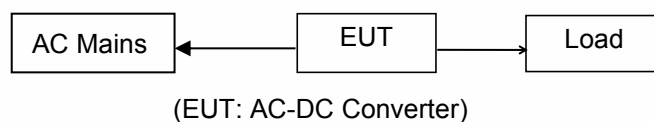
EMTEK(SHENZHEN) CO., LTD.

Applicant : <u>Favotek Limited</u>		Test Date : <u>May 19, 2020</u>		
EUT : <u>AC-DC Converter</u>		Temperature : <u>23°C</u>		
M/N : <u>PM32X15-S03, PM32X15-S24</u>		Humidity : <u>55%</u>		
Power Supply : <u>AC 230V/50Hz</u>		Test Engineer : <u>Tom</u>		
Test Mode : <u>Full load, half load, empty load</u>				
Frequency Range (MHz)	Injected Position	Strength	Criterion	Result
0.15-80 MHz	AC Mains	10V(rms)	A	PASS
Test Mode : _____				
Frequency Range (MHz)	Injected Position	Strength	Criterion	Result
Remark : 1. Modulation Signal:1KHz 80% AM Measurement Equipment : Simulator: CWS500C (SWITZERLAND EMTEST) CDN : <input checked="" type="checkbox"/> CDN-M2 (SWITZERLAND EMTEST) <input type="checkbox"/> CDN-M3 (SWITZERLAND EMTEST)		Note:		

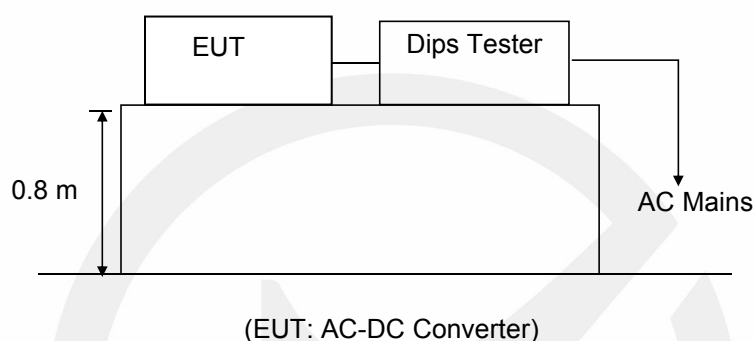
## 13. VOLTAGE DIPS AND INTERRUPTIONS TEST

### 13.1 Block Diagram of Test Setup

#### 13.1.1 Block Diagram of the EUT



#### 13.1.2 Dips Test Setup



### 13.2 Test Standard

EN 55035: 2017  
(IEC 61000-4-11: 2004)

### 13.3 Severity Levels and Performance Criterion

#### 13.3.1 Severity level

Test Level %UT	Voltage dip and short interruptions %UT	Duration (in period)
0	100	0.5
0	100	1
0	100	5
0	100	10
0	100	25
70	30	50
		*

**Performance criterion: B**

### 13.4 EUT Configuration

The configurations of EUT are listed in Section 13.1.

### 13.5 Operating Condition of EUT

Step 1: Setup the EUT as shown in Section 13.1.

Step 2: Turn on the power of all equipments.

Step 3: Let the EUT work in test mode (Full load, half load, empty load) and measure it.

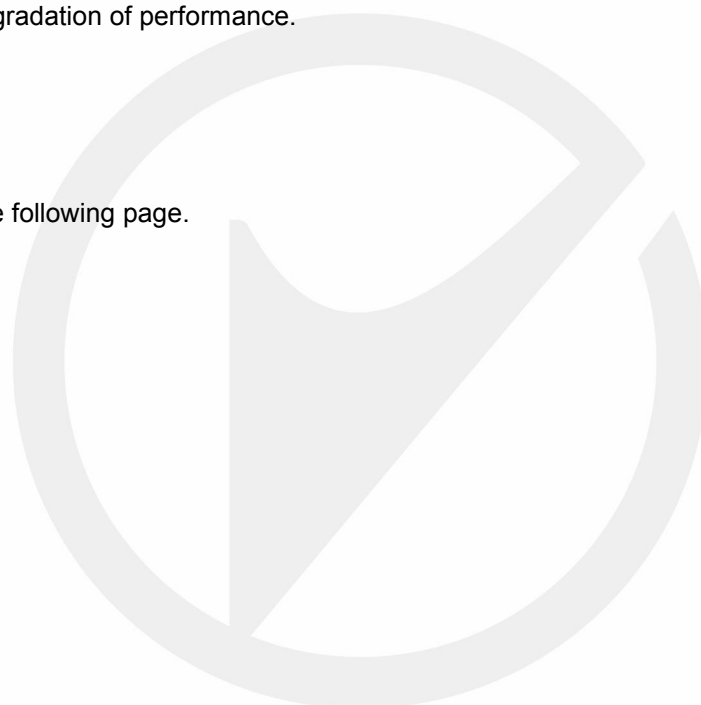
### 13.6 Test Procedure

- 1) Set up the EUT and test generator as shown on Section 13.1.2.
- 2) The interruption is introduced at selected phase angles with specified duration.
- 3) Record any degradation of performance.

### 13.7 Test Results

**PASS.**

Please refer to the following page.



## Voltage Dips And Interruptions Test Results

EMTEK(DONGGUAN) CO., LTD.

Applicant : Favotek Limited EUT : AC-DC Converter M/N : PM32X15-S03, PM32X15-S24 Power Supply : AC 230V/50Hz			Test Date : May 19, 2020 Temperature : 23°C Humidity : 55% Test Engineer : Huang	
Test Model : Full load (50Hz)				
Test Level % U <sub>T</sub>	Voltage Dips & Short Interruptions % U <sub>T</sub>	Duration (in period)	Criterion <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Result
0	100	0.5P	B	PASS
0	100	250P	B	PASS
70	30	25P	B	PASS
Test Model : Full load (60Hz)				
Test Level % U <sub>T</sub>	Voltage Dips & Short Interruptions % U <sub>T</sub>	Duration (in period)	Criterion <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Result
0	100	0.5P	B	PASS
0	100	300	B	PASS
70	30	30P	B	PASS
Remark: 1.U <sub>T</sub> is the rated voltage for the equipment.			Test Equipment : Dips Tester Pline 1610	

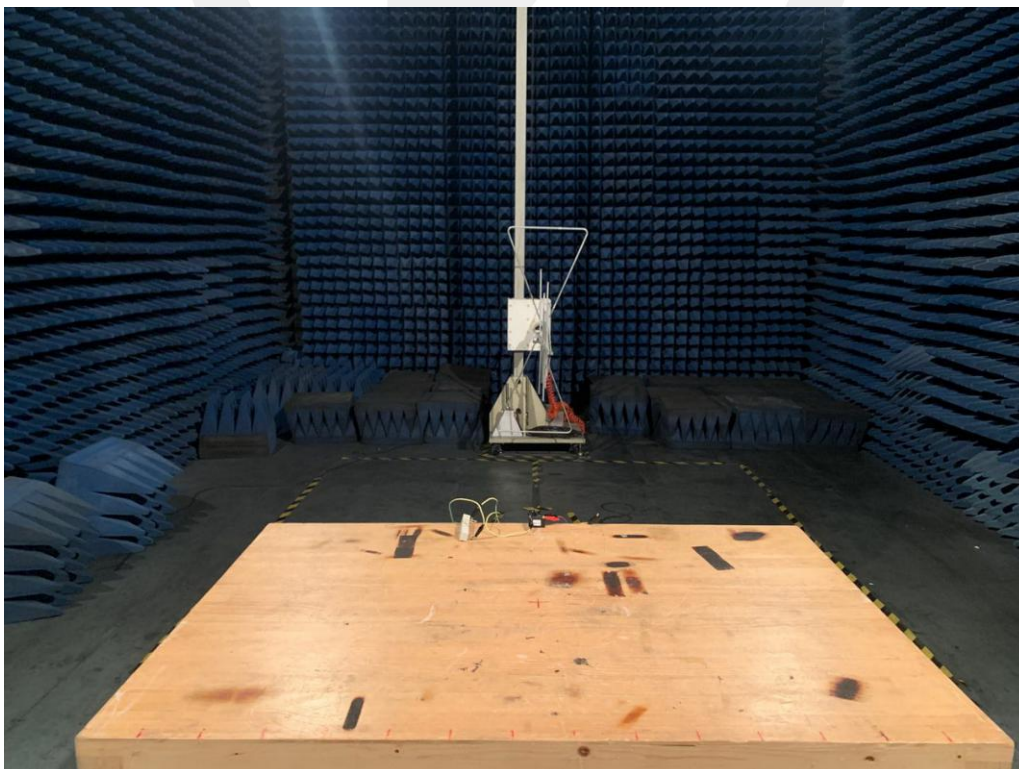


## 14. PHOTOGRAPH

### 14.1 Photo of Conducted Emission Measurement

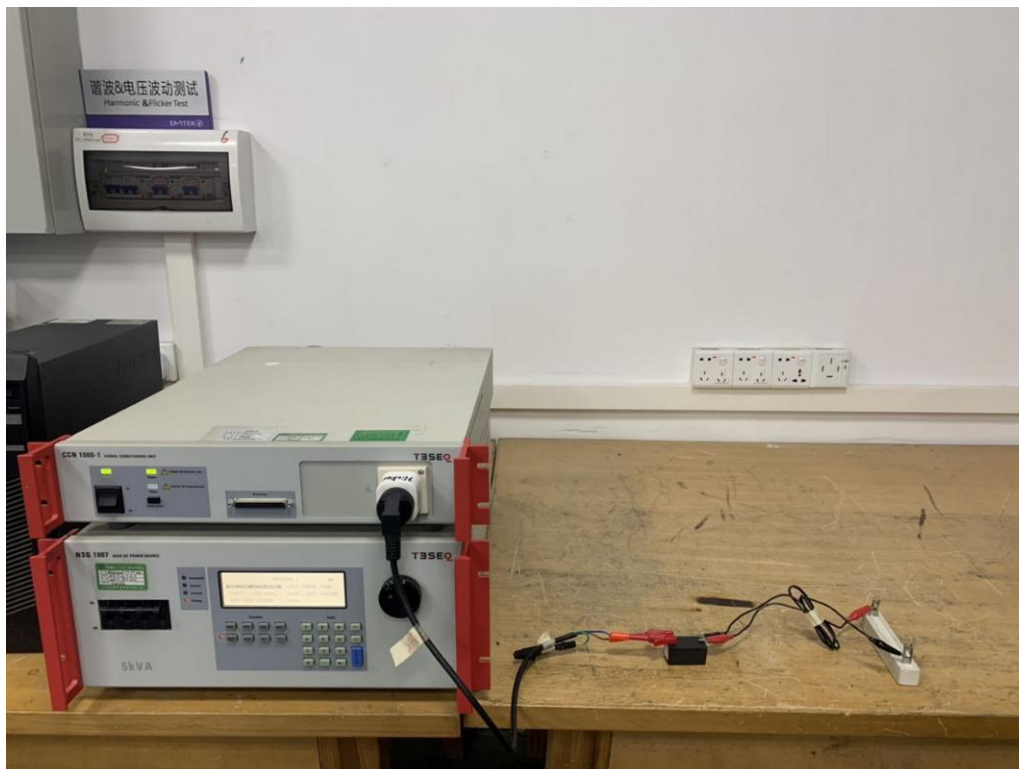


### 14.2 Photo of Radiation Emission Measurement





### 14.3 Photo of Harmonic/Flicker Measurement



### 14.4 Photo of Electrostatic Discharge Test



#### 14.5 Photo of Electrical Fast Transient /Burst Test



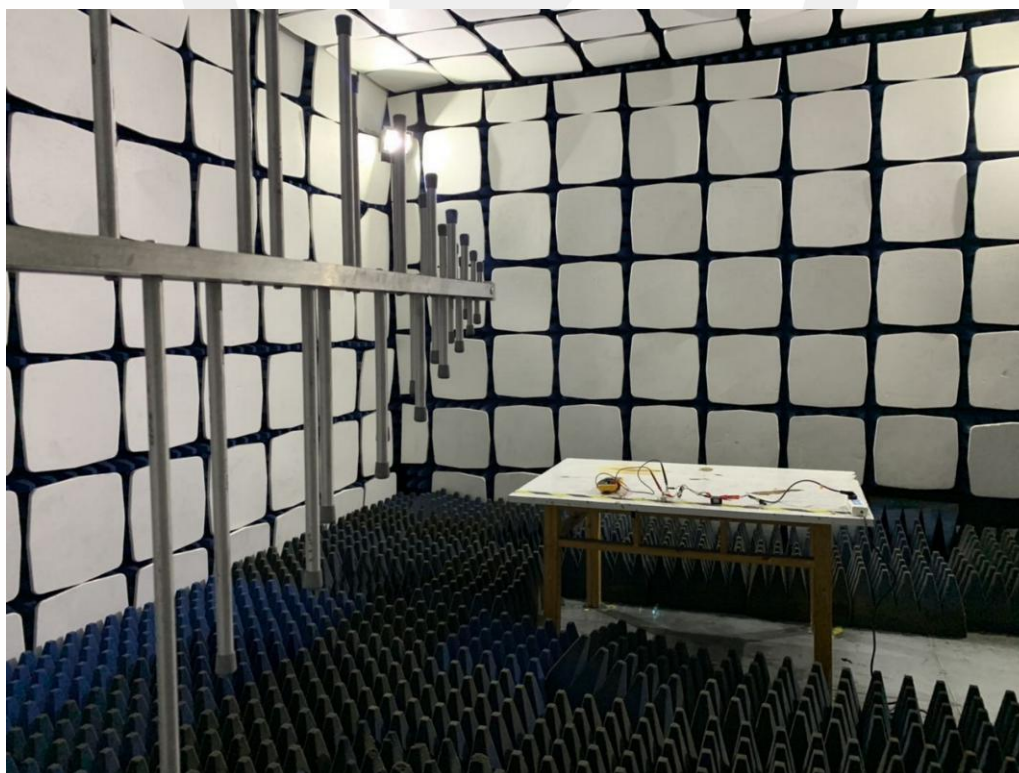
#### 14.6 Photo of Surge Test



#### 14.7 Photo of Voltage Dips and Interruption Immunity Test



#### 14.8 Photo of RF Field Strength susceptibility Test

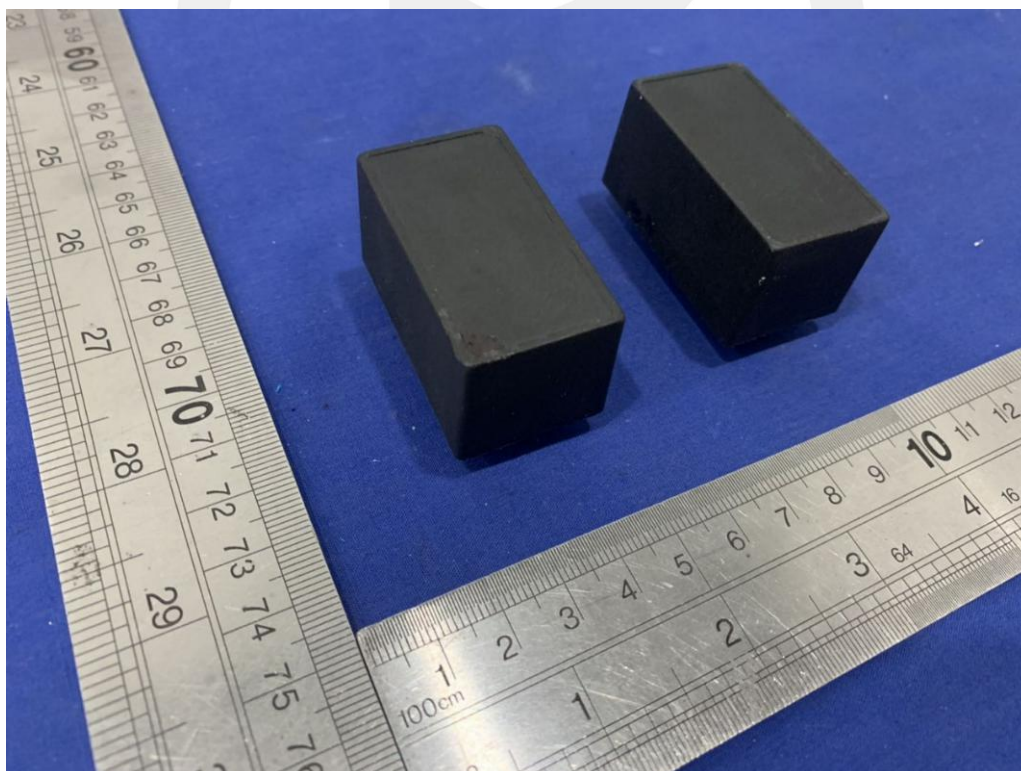
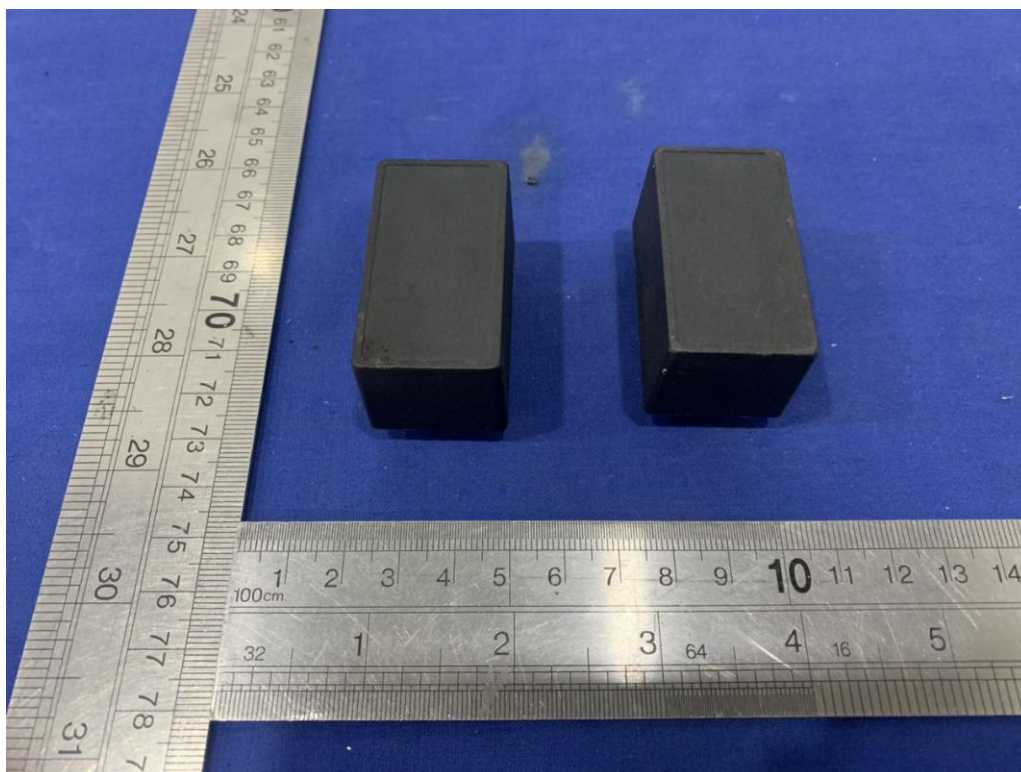




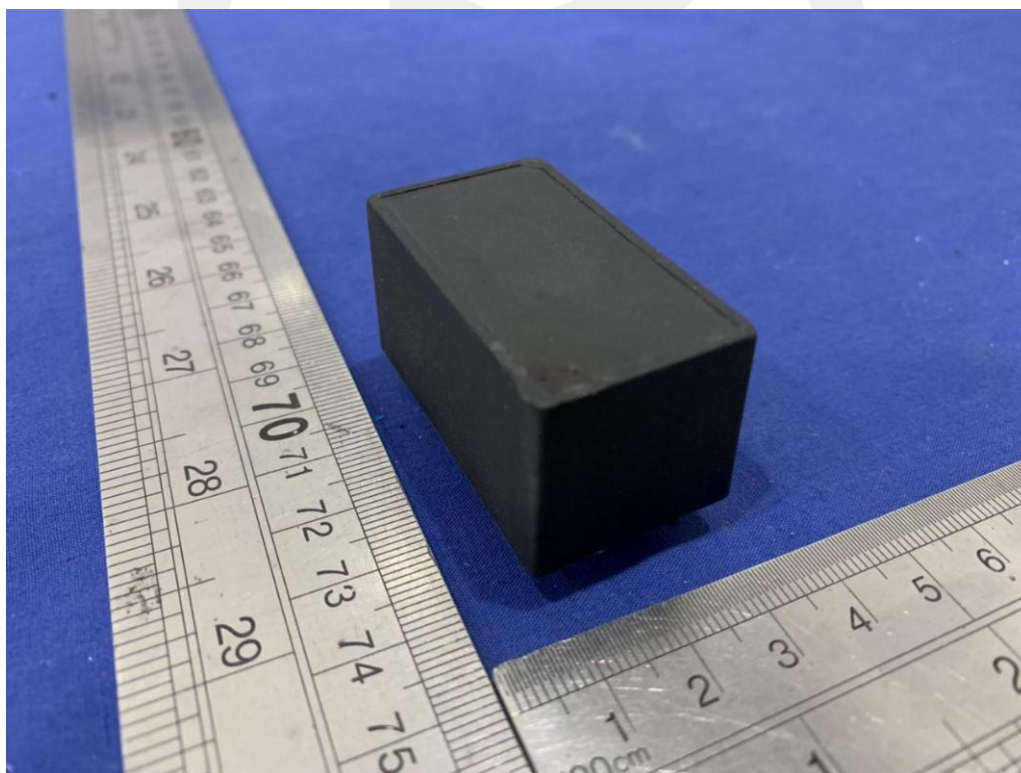
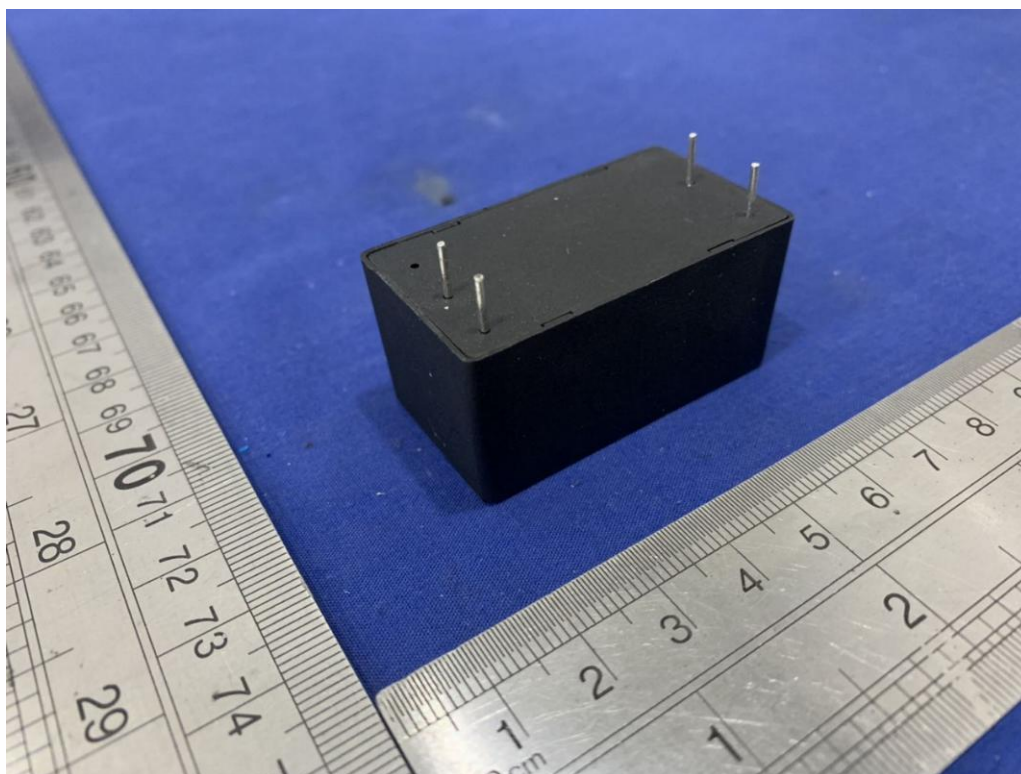
## 14.9 Photo of Injected Currents Susceptibility Test

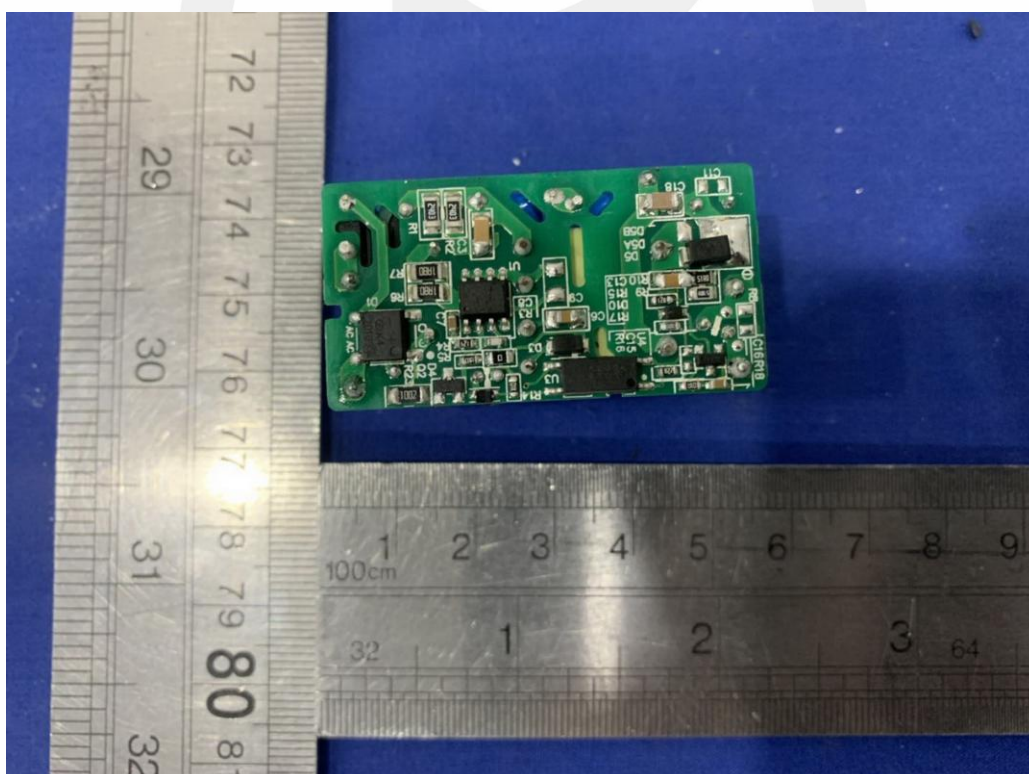
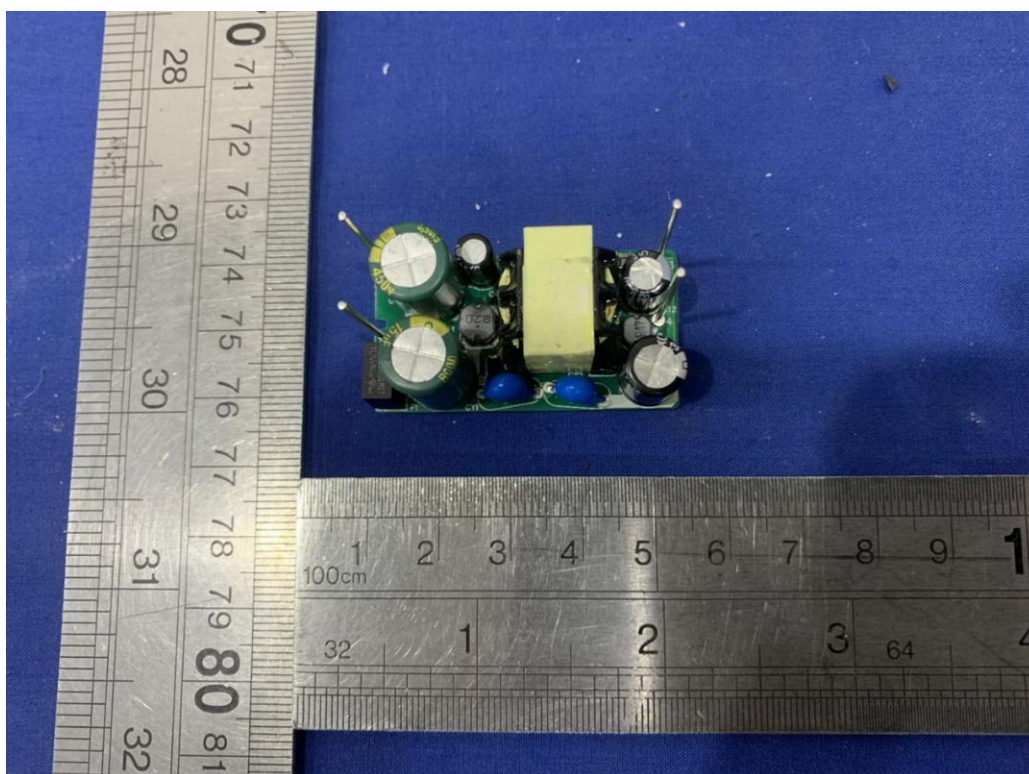


# APPENDIX I (Photos of EUT)









-----The end-----



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