



## YONGZHOU TAIJU ELECTRONICS CO., LTD.

# IC TEST REPORT

Prepared For :	YONGZHOU TAIJU ELECTRONICS CO., LTD.  Building C, Xingye Roadside Standard Factory Building, Tuojiang Town, Jianghua Yao Autonomous County, Yongzhou City, Hunan Province
Product Name:	J-xxVyyW SERIES POWER SUPPLY
Model :	J-29V15W J-ddVeeW series, rated output: 5Vdc to 29Vdc, 9W to 15W
Prepared By :	Shenzhen BST Technology Co., Ltd.  Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China
Test Date:	Apr. 12-15, 2019
Date of Report :	Apr. 15, 2019
Report No.:	BSTXD190411220407ER



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## DECLARATION OF CONFORMITY

### TEST REPORT DECLARATION

Applicant : YONGZHOU TAIJU ELECTRONICS CO., LTD.  
Manufacturer : YONGZHOU TAIJU ELECTRONICS CO., LTD.  
EUT Description : J-xxVyyW SERIES POWER SUPPLY

(A) MODEL NO. : J-29V15W

(B) Remark : N/A

(C) SERIAL NO. : N/A



Test Standards:

**ICES-005:2018, Issue 5**

The EUT described above is tested by US to determine the maximum emission levels emanating from the EUT, the maximum emission levels are compared to the ICES-005, Issue 5 limits. The measurement results are contained in this test report. and Shenzhen BST Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is to be technically compliant with the IC requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen BST Technology Co., Ltd.

Prepared by :

*Grace*

Assistant

Tested by :

*Toby Zhong*

Test Engineer

Reviewer :

*Tom chen*

Supervisor

Approved & Authorized Signer :



Salon/Manager



## 1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
Conducted disturbance	Pass
Radiated disturbance	Pass



## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	:	J-xxVyyW SERIES POWER SUPPLY
Model Number	:	J-29V15W
Applicant	:	YONGZHOU TAIJU ELECTRONICS CO., LTD. Building C, Xingye Roadside Standard Factory Building, Tuojiang Town, Jianghua Yao Autonomous County, Yongzhou City, Hunan Province
Manufacturer	:	YONGZHOU TAIJU ELECTRONICS CO., LTD. Building C, Xingye Roadside Standard Factory Building, Tuojiang Town, Jianghua Yao Autonomous County, Yongzhou City, Hunan Province
Date of Test	:	Mar. 12-14, 2019



## 2.2. Test Facility

### Site Description

EMC Lab.	:	Certificated by TIMCO
Name of Firm	:	Shenzhen BST Technology Co., Ltd.
Site Location	:	Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China

## 2.3. Test Uncertainty

Conducted Emission Uncertainty =  $\pm 2.66\text{dB}$

Radiated Emission Uncertainty =  $\pm 4.26\text{dB}$



### 3. TEST INSTRUMENT USED

#### 3.1. For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	Oct. 08, 18	1 Year
2.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	Oct. 08, 18	1 Year
3.	L.I.S.N.	Rohde & Schwarz	ESH2-Z5	834549/005	Oct. 08, 18	1 Year
4.	Conical	Emtek	N/A	N/A	N/A	N/A
5.	Voltage Probe	Schwarzbeck	TK9416	N/A	Oct. 08, 18	1 Year
6.	Coaxial Switch	Anritsu	MP59B	6100214550	Oct. 08, 18	1 Year

#### 3.2. For Radiated Emission Measurement

##### Anechoic Chamber

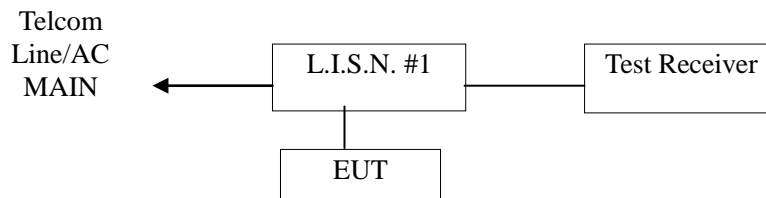
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	ANRITSU	MS2661C	6200140915	Oct. 08, 18	1 Year
2.	Test Receiver	Rohde&Schwarz	ESC830	828982/018	Oct. 08, 18	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	142	Oct. 08, 18	1 Year
4.	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Oct. 08, 18	1 Year
5.	Cable	Schwarzbeck	AK9513	ACRX1	Oct. 08, 18	1 Year
6.	Cable	Rosenberger	N/A	FR2RX2	Oct. 08, 18	1 Year
7.	Cable	Schwarzbeck	AK9513	CRRX2	Oct. 08, 18	1 Year
8.	Cable	Schwarzbeck	AK9513	CRRX2	Oct. 08, 18	1 Year
9.	Single Phase Power Line Filter	MPE	23332C	N/A	Oct. 08, 18	1 Year
10.	Single Phase Power Line Filter	MPE	23333C	N/A	Oct. 08, 18	1 Year
11.	Signal Generator	HP	864A	3625U00573	Oct. 08, 18	1 Year





## 4. CONDUCTED EMISSION TEST

### 4.1. Block Diagram of Test Setup



(EUT: J-xxVyyW SERIES POWER SUPPLY)

### 4.2. Test Standard

ICES-005:2018, Issue 5

### 4.3. Conducted Emission Limit(Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. \*Decreasing linearly with logarithm of frequency.

### 4.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet ICES-005, Issue 5 requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

#### 4.4.1. EUT Information

Model Number : **J-29V15W**  
Serial Number : N/A



#### 4.5. Operating Condition of EUT

- 4.5.1. Setup the EUT and simulators as shown in Section 4.1.
- 4.5.2. Turn on the power of all equipments.
- 4.5.3. Let the EUT work in test modes (EUT Working) and test it.

#### 4.6. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

The bandwidth of the test receiver (R&S Test Receiver ESHS30) is set at 10KHz. and all the scanning waveform are attached within **Appendix I**.

#### 4.7. Test Result

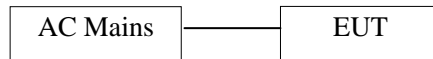
**PASS**



## 5. RADIATED EMISSION MEASUREMENT

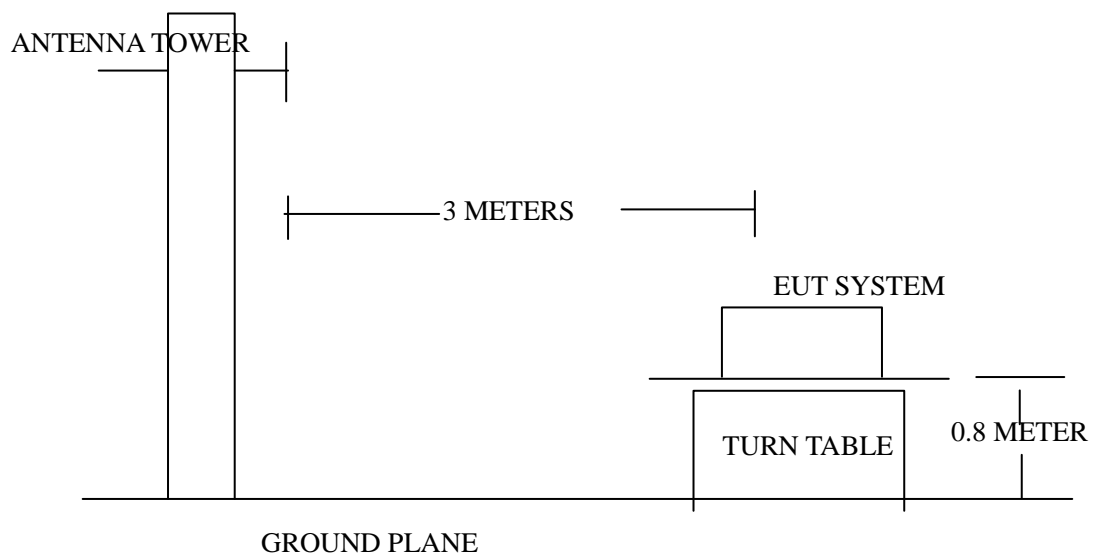
### 5.1. Block Diagram of Test Setup

#### 5.1.1. Block Diagram of connection between the EUT and the simulators



(EUT: J-xxVyyW SERIES POWER SUPPLY)

#### 5.1.2. Anechoic Chamber Test Setup Diagram



### 5.2. Test Standard

ICES-005:2018, Issue 5

### 5.3. Radiated Emission Limit (Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB $\mu$ V/m)
30 ~ 88	3	40
88-216	3	43.5
8216-1000	3	46

Note:(1) The tighter limit shall apply at the edge 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 following equipment are installed on Radiated Emission Measurement to meet the Commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

#### 5.5. Operating Condition of EUT

- 5.5.1. Setup the EUT as shown on Section 4.1
- 5.5.2. Turn on the power of all equipments.
- 5.5.3. Let the EUT work in test mode(EUT working) and measure it.

#### 5.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter above 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 an antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

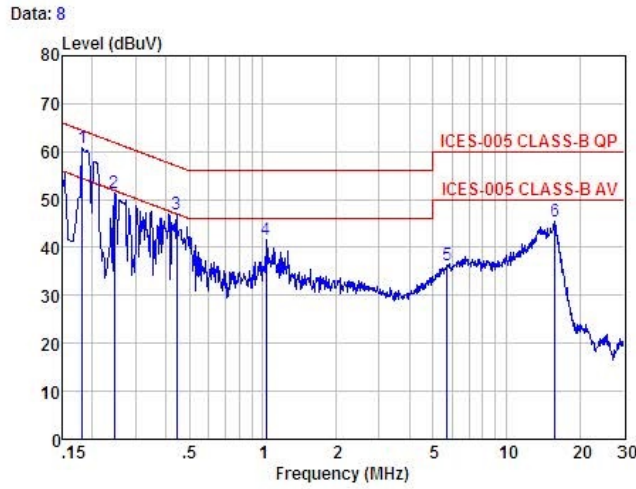
The bandwidth setting on the test receiver (R&S TEST RECEIVER ESCS20) is 120 KHz. The EUT is tested in Anechoic Chamber. The frequency range from 30MHz to 1000 MHz is checked. All the test results are listed in Section 5.7. and all the scanning waveform are attached within **Appendix II**.

#### 5.7. Test Result

**PASS**

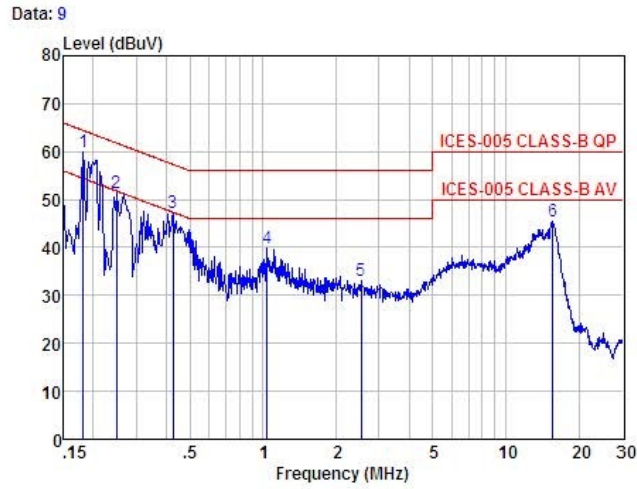


## APPENDIX I



Site : BST Technology (Shenzhen )Co.,Ltd.  
 Condition: ICES-005 CLASS-B QP ESH3-Z5  
 : RBW:120.000KHz VBW:1000.000KHz  
 out :  
 mode :  
 memo :

	Freq	Pol/Phase	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz		dBuV	dB	dB	dBuV	dBuV	dB	
1	max	0.18	LINE	50.38	0.42	9.97	60.77	64.42	-3.65 Peak
2		0.25	LINE	41.01	0.41	9.98	51.40	61.91	-10.51 Peak
3		0.44	LINE	36.67	0.37	10.02	47.06	57.02	-9.96 Peak
4		1.03	LINE	30.91	0.47	10.10	41.48	56.00	-14.52 Peak
5		5.71	LINE	25.54	0.49	10.38	36.41	60.00	-23.59 Peak
6		15.80	LINE	34.58	0.43	10.33	45.34	60.00	-14.66 Peak



Site : BST Technology (Shenzhen )Co.,Ltd.  
 Condition: ICES-005 CLASS-B QP ESH3-Z5  
 : RBW:120.000KHz VBW:1000.000KHz  
 eut :  
 mode :  
 memo :

	Freq	Pol/Phase	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz		dBuV	dB	dB	dBuV	dBuV	dB	
1	max	0.18	NEUTRAL	49.47	0.52	9.97	59.96	64.42	-4.46 Peak
2		0.25	NEUTRAL	40.87	0.52	9.98	51.37	61.78	-10.41 Peak
3		0.43	NEUTRAL	36.75	0.53	10.02	47.30	57.33	-10.03 Peak
4		1.04	NEUTRAL	29.26	0.51	10.10	39.87	56.00	-16.13 Peak
5		2.54	NEUTRAL	22.21	0.52	10.25	32.98	56.00	-23.02 Peak
6		15.55	NEUTRAL	34.61	0.50	10.31	45.42	60.00	-14.58 Peak



## APPENDIX II



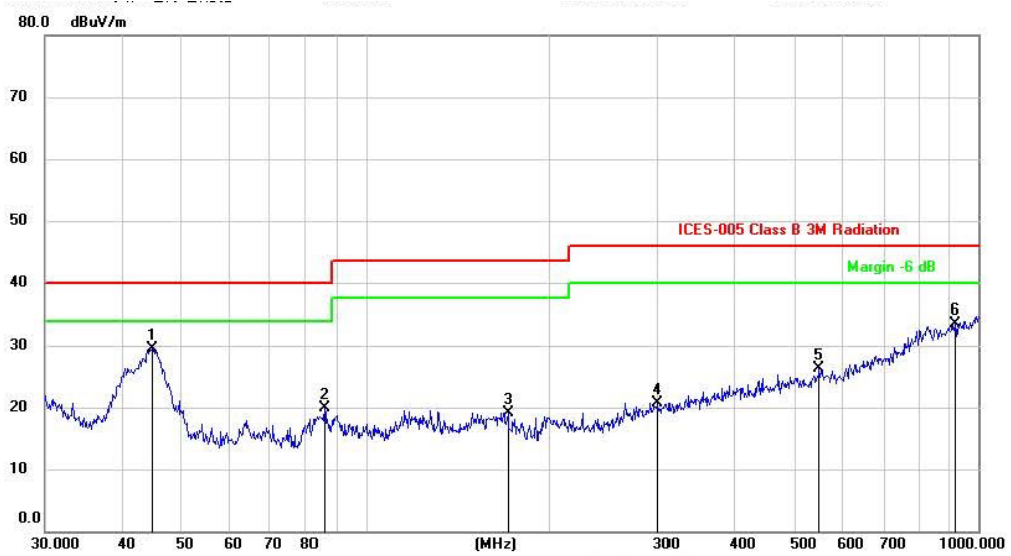


Site: Chamber #1  
 Limit: ICES-005 Class B 3M Radiation  
 EUT:  
 M/N:  
 Mode:  
 Note:

Polarization: **Horizontal**  
 Power: AC 120V/60Hz  
 Distance:

Temperature: 26  
 Humidity: 55 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dBuV/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1		39.4371	16.47	4.40	20.87	40.00	-19.13	QP			
2		86.2001	14.04	0.93	14.97	40.00	-25.03	QP			
3		129.9226	15.07	3.57	18.64	43.50	-24.86	QP			
4		305.6800	14.10	7.25	21.35	46.00	-24.65	QP			
5		547.0977	14.82	11.69	26.51	46.00	-19.49	QP			
6	*	818.8341	15.10	17.77	32.87	46.00	-13.13	QP			



Site: Chamber #1  
 Limit: ICES-005 Class B 3M Radiation  
 EUT:  
 M/N:  
 Mode:  
 Note:

Polarization: **Vertical**  
 Power: AC 120V/60Hz  
 Distance:

Temperature: 26  
 Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	Comment
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	cm	degree	
1	*	44.9006	26.45	3.08	29.53	40.00	-10.47	QP		
2		85.5977	19.05	0.94	19.99	40.00	-20.01	QP		
3		170.7926	16.85	2.29	19.14	43.50	-24.36	QP		
4		300.3672	13.57	7.07	20.64	46.00	-25.36	QP		
5		549.0195	14.48	11.76	26.24	46.00	-19.76	QP		
6		916.0687	15.01	18.48	33.49	46.00	-12.51	QP		



## APPENDIX III

**Photo 1 General Appearance of the EUT**



**Photo 2 General Appearance of the EUT**



**Photo 3 Test scene**



**Photo 4 Test scene**

