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TEST REPORT

Applicant: PITE TECH. INC.

Address of Applicant: 4/F, Bldg A, Chiwan Industrial Park, Shaodi Rd., Chiwan,

Shekou Area, Shenzhen, China

Equipment Under Test (EUT)

Product Name: BATTERY TESTER

Model No.: PITE 391X(X=0-9)

Applicable standards: EN 61326-1:2013

EN 61000-3-2:2014

EN 61000-3-3:2013

Date of sample receipt: April 12, 2018

Date of Test: April 12, 2018 To May 23, 2018

Date of report issued: May 23, 2018

Test Result: PASS *

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.

Authorized Signature

Kevin Wang Laboratory Manager CE



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2 Version

Version No.	Date	Description
00	May 23, 2018	Original

Prepared By: Amy Wang Date:

Project Engineer

Reviewed By: Leviewed By: Date:

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4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission	EN 61326-1	EN 55011	Class A	Pass
Conducted Emission	EN 61326-1	EN 55011	Class A	Pass
Harmonic Current Emission	EN 61000-3-2	EN 61000-3-2	Class A	Pass
Voltage Fluctuations and Flicker	EN 61000-3-3	EN 61000-3-3	Clause 5	Pass
Electrostatic discharge	EN 61326-1	EN 61000-4-2	Contact ±4 kV Air ±8 kV	Pass
Radiated Immunity (80MHz-2.7GHz)	EN 61326-1	EN 61000-4-3	3V/m, 1V/m 80%, 1kHz, AM	Pass
Electrical fast transients	EN 61326-1	EN 61000-4-4	± 2.0kV for AC port;	Pass
Surges	EN 61326-1	EN 61000-4-5	1kV Line to Line 2kV Line to Ground	Pass
Conducted Immunity	EN 61326-1	EN 61000-4-6	10V/m, 80%, 1kHz Amp. Mod. 3V/m, 80%, 1kHz Amp. Mod. 1V/m, 80%, 1kHz Amp. Mod.	Pass
Voltage dips and interruptions	EN 61326-1	EN 61000-4-11	0 % UT for 1per 40 % UT for 10per 70 % UT for 25per 0 % UT for 250per UT is Supply Voltage	Pass

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5 General Information

5.1 Client Information

Applicant:	PITE TECH. INC.
Address of Applicant:	4/F, Bldg A, Chiwan Industrial Park, Shaodi Rd., Chiwan, Shekou Area,
	Shenzhen, China
Manufacturer:	PITE TECH. INC.
Address of Manufacturer:	4/F, Bldg A, Chiwan Industrial Park, Shaodi Rd., Chiwan, Shekou Area,
	Shenzhen, China

5.2 General Description of EUT

Product Name:	BATTERY TESTER
Model No.:	PITE 391X(X=0-9)
	Remark: All models are identical in the same PCB layout, interior structure and electrical circuits. The only differences are the model name and appearance color for commercial purpose.
Power Supply:	DC 8.4V===2.0A(from external AC/DC power supply adapter)
	Adapter:
	Input: AC 100-240V~, 50/60Hz
	Output: DC 8.4V===2.0A

5.3 Test mode

On mode: Keep the EUT in the operation status

5.4 Description of Support Units

None.

5.5 Deviation from Standards

None.

5.6 Abnormalities from Standard Conditions

None.

5.7 Monitoring of EUT for All Immunity Test

Visual:	Monitor the EUT operating status.
Audio:	N/A

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6 Test Instruments List

Radia	Radiated Emission:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.0(L)*6.0(W)* 6.0(H)	GTS250	Jul. 3 2015	Jul. 2 2020		
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A		
3	ESU EMI Test Receiver	R&S	ESU26	GTS203	Jun. 29 2017	Jun. 28 2018		
4	BiConiLog Antenna	SCHWARZBECK	VULB9163	GTS214	Jun. 29 2017	Jun. 28 2018		
5	Double-ridged horn antenna	SCHWARZBECK	9120D	GTS208	Jun. 29 2017	Jun. 28 2018		
6	RF Amplifier	HP	8347A	GTS204	Jun. 29 2017	Jun. 28 2018		
7	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Jun. 29 2017	Jun. 28 2018		
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
9	Coaxial cable	GTS	N/A	GTS210	N/A	N/A		
10	Coaxial Cable	GTS	N/A	GTS211	N/A	N/A		
11	Thermo meter	KTJ	TA328	GTS256	Jun. 29 2017	Jun. 28 2018		

Cond	Conducted Emission							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.16 2014	May.15 2019		
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Jun. 29 2017	Jun. 28 2018		
3	Pulse Limiter	R&S	ESH3-Z2	GTS224	Jun. 29 2017	Jun. 28 2018		
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	Jun. 29 2017	Jun. 28 2018		
5	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	Jun. 29 2017	Jun. 28 2018		
6	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A		
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A		
8	Thermo meter	KTJ	TA328	GTS233	Jun. 29 2017	Jun. 28 2018		
9	ISN	EMTEST	FCC-TLISN-T8-02	GTS563	Jun. 29 2017	Jun. 28 2018		

EFT,	EFT, Surge, Voltage dips and Interruption:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	EMTEST system	EMTEST	UCS500N	GTS239	Jun. 29 2017	Jun. 28 2018	
2	Thermo meter	KTJ	TA328	GTS233	Jun. 29 2017	Jun. 28 2018	
3	capacitive Clamp	EMTEST	HFK	GTS557	Jun. 29 2017	Jun. 28 2018	



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ESD:	ESD:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	ESD Simulator	KIKUSUI	KES4021A	GTS242	Jun. 29 2017	Jun. 28 2018
2	Thermo meter	KTJ	TA328	GTS243	Jun. 29 2017	Jun. 28 2018

Harm	Harmonic/ Flicker:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)	
1	HARMONIC/FLICKER ANALYZER	KIKUSUI	KHA1000	GTS235	Jun. 29 2017	Jun. 28 2018	
2	AC POWER SUPPLY	KIKUSUI	PCR4000LE	GTS236	Jun. 29 2017	Jun. 28 2018	
3	LINE IMPEDANCE NETWORK	KIKUSUI	LIN1020JF	GTS237	Jun. 29 2017	Jun. 28 2018	
4	Thermo meter	KTJ	TA328	GTS256	Jun. 29 2017	Jun. 28 2018	

Cond	Conducted Immunity:							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)		
1	Signal Generator	SCHLODER	CDG-6000-25	GTS553	Jun. 29 2017	Jun. 28 2018		
2	CDN	SCHLODER	CDN-M2+3	GTS554	Jun. 29 2017	Jun. 28 2018		
3	EM-Clapm	SCHLODER	EMCL-20	GTS555	Jun. 29 2017	Jun. 28 2018		
4	ATT	SCHLODER	ATT-6DB-100	GTS556	Jun. 29 2017	Jun. 28 2018		

Radia	Radiated Immunity:					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due Date (mm-dd-yy)
1	Signal Generator	Rohde & Schwarz	SMT03	100059	Jan. 16 2018	Jan. 15 2019
2	Power Amplifier	AR	150W1000	300999	Jan. 16 2018	Jan. 15 2019
3	Power Amplifier	AR	25S1G4AM1	305993	Jan. 16 2018	Jan. 15 2019
4	Power Amplifier	AR	150A220M6	305965	Jan. 16 2018	Jan. 15 2019
5	Broadband antenna	CHASE	CBL6111C	2576	Jan. 16 2018	Jan. 15 2019
6	Horn Antenna	AR	AT4002A	2783	Jan. 16 2018	Jan. 15 2019

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7 Emission Test Results

7.1 Radiated Emission

Test Requirement: EN 61326-1					
'	EN 61326-1				
Test Method: EN 55011					
Test Frequency Range: 30MHz to 1GHz					
Class / Severity: A	Α				
Measurement Distance: 3m					
Limit: Frequency	Limit (dBµV/m)	Value			
30MHz-230MHz	50.00	Quasi-peak			
230MHz-1GHz	57.00	Quasi-peak			
Test setup:	Glouid researce raine	Antenna Tower			
chamber.					
the ground reference p	2. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.				
		k detector to find out the			
rotated 360°, and the a meters in order to dete	eximum emission were of easurement. At each free antenna was raised and ermine the maximum dis erformed for both horizon	quency, the EUT was lowered from 1 to 4 sturbance.			
Test environment: Temp.: 25 °C	Humid.: 52%	Press.: 1012mbar			
Measurement Record:	į	Jncertainty: ± 4.50dB			
Test Instruments: Refer to section 6 for det	tails				
Test mode: Refer to section 5.3 for d	Refer to section 5.3 for details				
Test results: Pass					



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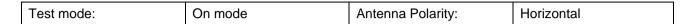
Email:ebo@ebotest.com Web:www.ebotest.com

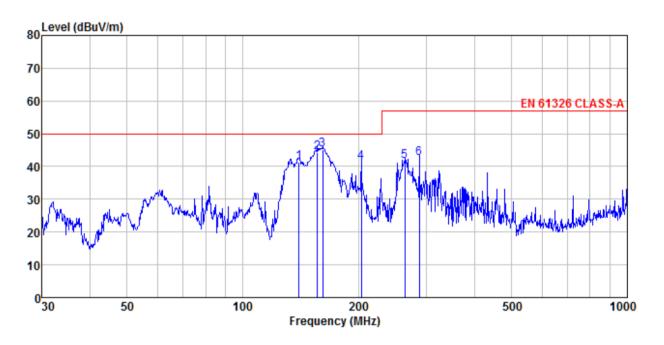
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Measurement Data





	Freq			Preamp Factor				Over Limit	Remark
	MHz	dBu∀	<u>dB</u> /m	<u>dB</u>	dB	dBuV/m	dBuV/m	dB	
1 2 3 4 5 6	203.523 263.819	71.65 72.20 66.18 64.19	8.10 8.33 10.55 12.58	37.02 37.11 37.14 37.33 37.39 37.41	1.61 1.64 1.86 2.19	44.25 45.03 41.26 41.57	50.00 50.00 50.00 57.00	-5.75 -4.97 -8.74 -15.43	QP QP QP QP



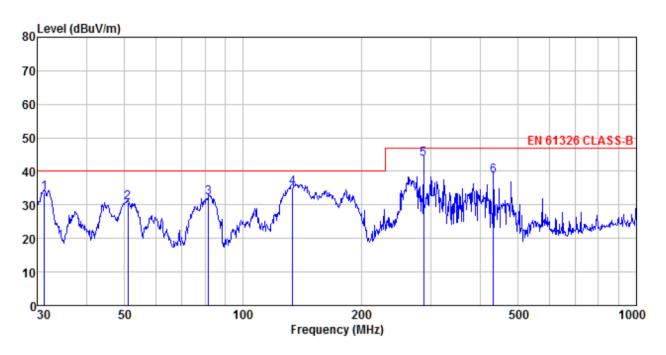
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Test mode: On mode Antenna Polarity: Vertical

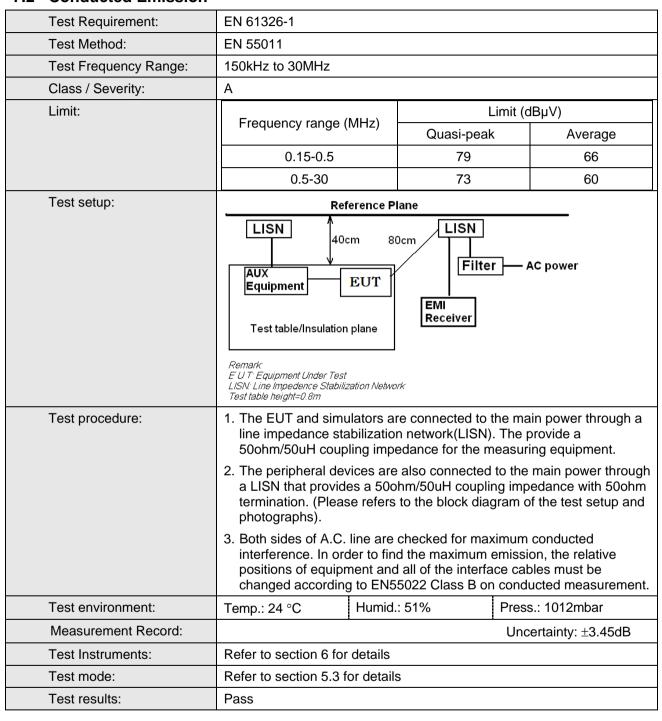


	Freq			Preamp Factor				Over Limit	Remark
	MHz	dBu∀	<u>dB</u> /m	<u>ab</u>	dB	dBuV/m	$\overline{dBuV/m}$	dB	
1 2 3 4 5 6	31. 289 50. 942 81. 783 133. 619 287. 990 432. 546	62.85 65.51	8.03 7.92 13.27	36.56 36.98	1.04 1.46 2.31	30.72 32.08 35.25 43.68	40.00 40.00 40.00 40.00 47.00 47.00	-9.28 -7.92 -4.75 -3.32	QP QP QP QP

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7.2 Conducted Emission





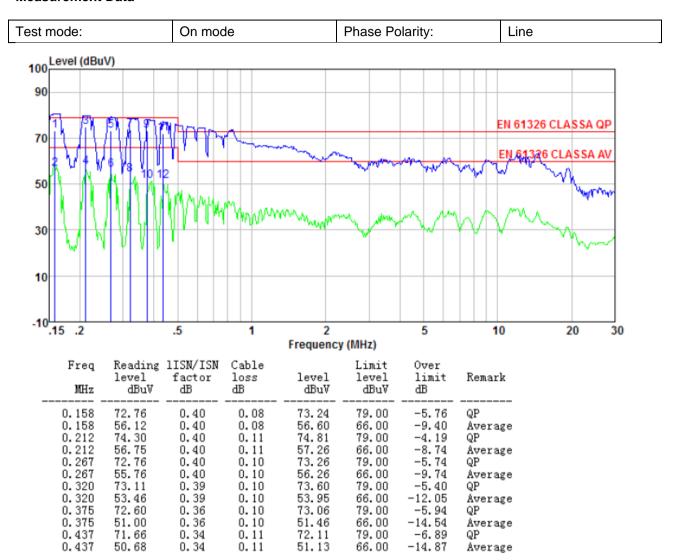
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Measurement Data



Remarks: level = Reading level + Antenna factor + Cable loss

0.262

0.262

0.307

0.307

0.356

0.356

0.413

0.413

71.34

55.68

70.95

52.11

71.50

46.32

71.40

49.56

0.40

0.40

0.40

0.40

0.37

0.37

0.35

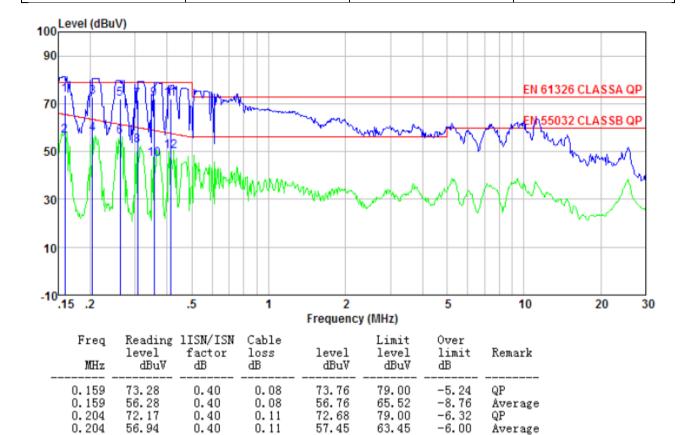
0.35

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Test mode: On mode Phase Polarity: Neutral



71.84

56.18

71.45

52.61

71.97

46.79

71.86

50.02

79.00

61.38

79.00

60.06

79.00

58.83

79.00

57.59

-7.16

-5.20

-7.55

-7.45

-7.03

-7.14

-7.57

-12.04

QΡ

ΩP

ΩP

QΡ

Average

Average

Average

Average

Remarks: level = Reading level + Antenna factor + Cable loss

0.10

0.10

0.10

0.10

0.10

0.10

0.11

0.11

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7.3 Harmonic Current Emission

Test Requirement:	EN 61326-1			
Test Method:	EN 61000-3-2	EN 61000-3-2		
Freqiemcu range:	100Hz to 2kHz	100Hz to 2kHz		
Measurement Time:	2.5 min			
Class/Severity:	Class A			
Detector:	As per EN 61000-3-2			
Test environment:	Temp.: 24°C	Humid.: 51%	Press.: 1010bar	
Test Instruments:	Refer to section 5 for details			
Test mode:	Refer to section 4.3 for details			
Test results:	Passed			

7.4 Flicker Emission

Test Requirement:	EN 61326-1	EN 61326-1				
Test Method:	EN 61000-3-3	EN 61000-3-3				
Class/Severity:	Clause 5 of EN 6100	Clause 5 of EN 61000-3-3				
Measurement Time:	10 min					
Detector:	As per EN 61000-3-3					
Test environment:	Temp.: 24 °C	Humid.: 51%	Press.: 1012mbar			
Test Instruments:	Refer to section 6 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass	Pass				

Measurement Data

Test Item	EUT values	Limit	Result
Pst	0.031	1.00	PASS
Plt	0.031	0.65	PASS
dc [%]	0.000	3.30	PASS
dmax [%]	0.044	4.00	PASS
dt [s]	0.000	0.50	PASS

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8 Immunity Test Results

8.1 Performance Criteria Description in Clause 6.4 of EN 61326-1

Criterion A:	The equipment shall continue to operate as intended during and after the test.			
	No degradation of performance or loss of function is allowed below a			
	performance level specified by the manufacturer, when the equipment is used			
	as intended. The performance level may be replaced by a permissible loss of			
	performance. If the minimum performance level or the permissible performance			
	loss is not specified by the manufacturer, either of these may be derived from			
	the product description and documentation and what the user may reasonably			
	expect from the equipment if used as intended.			
Criterion B:	The equipment shall continue to operate as intended during and after the test.			
	No degradation of performance or loss of function is allowed below a			
	performance level specified by the manufacturer, when the equipment is used			
	as intended. The performance level may be replaced by a permissible loss of			
	performance. If the minimum performance level or the permissible performance			
	loss is not specified by the manufacturer, either of these may be derived from			
	the product description and documentation and what the user may reasonably			
	expect from the equipment if used as intended.			
Criterion C:	Temporary loss of function is allowed, provided the function is self-recoverable			
	or can be restored by the operation of the controls.			
•				

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8.2 Electrostatic discharge

Test Requirement:	EN 61326-1		
Test Method:	EN 61000-4-2		
Discharge Voltage:	Contact Discharge: ±2kV, ±4kV		
	Air Discharge: ±2kV, ±4kV, ±8kV		
	HCP/VCP: ±2kV, ±4kV		
Polarity:	Positive & Negative		
Number of Discharge:	Contact Discharge: Minimum 25 times at each test point,		
	Air Discharge: Minimum 10 times at each test point.		
Discharge Mode:	Single Discharge		
Discharge Period:	1 second minimum		
Performance Criterion:	В		
Test setup:	Electrostatic Discharge EUT VCP(0.5m*0.5m) 470K ohm Non-Conducted Table 470K ohm Ground Reference Plane		

Test Procedure:

1. Air discharge:

The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure was repeated until all the air discharge completed

2. Contact Discharge:

The test was applied on conductive surfaces of EUT. the generator was re-triggered for a new single discharge and repeated 25 times for each pre-selected test point. the tip of the discharge electrode was touch the EUT before the discharge switch was operated.

3. Indirect discharge for horizontal coupling plane

At least 10 single discharges shall be applied at the front edge of each HCP opposite the centre point of each unit of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

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	Consideration should be given to exposing all sides of the EUT.			
	4. Indirect discharge for vertical coupling plane			
	At least 10 single discharges were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.			
Test environment:	Temp.: 24 °C Humid.: 51% Press.: 1012mbar			
Test mode:	Refer to section 6 for details			
Test Instruments:	Refer to section 5.3 for details			
Test results:	Pass			

Measurement Record:

Measurement Reco	r <u>d:</u>			
Toot points:	I: N/A			
Test points:	II: Screen, Crevice, Con	ntrol key, Ports		
Direct discharge				
Discharge			Observations	
Voltage (KV)	Type of discharge	Test points	(Performance Criterion)	Result
± 4	Contact	I	N/A	N/A
± 8	Air	II	А	Pass
Indirect discharge				
Discharge	Type of discharge	Toot mainto	Observation	Result
Voltage (KV)	Type of discharge	Test points	Performance	Result
± 4	HCP-Bottom/Top/	Edge of the HCP	А	Pass
± 4	Front/Back/Left/Right	Edge of the FICE	A	F a55
± 4	VCP-Front/Back	Center of the VCP	А	Pass
± 4	/Left/Right	Center of the VCF		F a 5 5

Remark:

A: No degradation in performance of the EUT was observed.

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8.3 Radiated Immunity(80MHz-2.7GHz)

Test Requirement:	EN 61326-1		
Test Method:	EN 61000-4-3		
Frequency range:	80MHz to 1GHz, 1.4GHz to 2GHz, 2GHz to 2.7GHz		
Modulation:	80%, 1kHz Amplitude Modulation		
Performance Criterion:	A		
Test setup:	Camera Antenna Tower Ground Reference Plane Generator Amplifier		
Test Procedure:	1. For table-top equipment, the EUT was placed in the chamber on a non-conductive table 0.8m high. For arrangement of floor-standing equipment, the EUT was mounted on a non-conductive support 0.1m above the supporting plane. For human body-mounted equipment, the EUT may be tested in the same manner as table top items.		
	If possible, a minimum of 1 m of cable is exposed to the electromagnetic field. Excess length of cables interconnecting units of the EUT shall be bundled low-inductively in the approximate center of the cable to form a bundle 30 cm to 40 cm in length.		
	The EUT was initially placed with one face coincident with the calibration plane. The EUT face being illuminated was contained within the UFA (Uniform Field Area).		
	4. The frequency ranges to be considered were swept with the signal modulated and pausing to adjust the RF signal level or to switch oscillators and antennas as necessary. Where the frequency range was swept incrementally, the step size was not exceed 1 % of the preceding frequency value.		
	5. The dwell time of the amplitude modulated carrier at each frequency was not be less than the time necessary for the EUT to be exercised and to respond, and was not less than 0,5 s.		
	6. The test normally was performed with the generating antenna facing		

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	each side of the	EUT.			
	necessitates tes	necessitates testing each selected side twice, once with the antenna positioned vertically and again with the antenna positioned			
	 The EUT was performed in a configuration to actual installation conditions, a video camera and/or a audio monitor were used to monitor the performance of the EUT. 				
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1012mbar				
Test Instruments:	Refer to section 6 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Pass				

Measurement Record:

Frequency	Level (V/m)	EUT Face	Dwell time	Observations	Result
		Front		Α	Pass
		Back		А	Pass
001411-4011-	40	Left	0-	А	Pass
80MHz-1GHz	10	Right	2s	А	Pass
		Тор		А	Pass
		Underside		А	Pass
1.4GHz-2GHz	3	Front		А	Pass
		Back	2s	А	Pass
		Left		А	Pass
		Right		А	Pass
		Тор		А	Pass
		Underside		А	Pass
		Front		А	Pass
2GHz-2.7GHz	1	Back		A	Pass
		Left	2s	А	Pass
		Right		Α	Pass
		Тор		Α	Pass
		Underside		А	Pass

Remark:

A: No degradation in performance of the EUT was observed.

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8.4 Electrical fast transients

Test Requirement:	EN 61326-1				
Test Method:	EN 61000-4-4				
Test Level:	a.c. power port – 2 kV				
Polarity:	Positive & Negative				
Burst Period:	300ms				
Test Duration:	2 minute per level & polarity				
Performance Criterion:	В				
Test setup:	EMC Tester EUT 10cm Non-conducted table Ground Reference Plane Ground Reference Plane				
Test Procedure:	 The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support 0.1m + 0.01m thick. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane was 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 was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables. The length of power lines between the coupling device and the EUT is 0.5m The EUT is connected to the power mains through a coupling device that directly couples the EFT/B interference signal. Each of the Line and Neutral conductors is impressed with burst noise for 2 minutes. 				
Test environment:	Temp.: 26 °C Humid.: 54% Press.: 1012mbar				
Test Instruments:	Refer to section 6 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Pass				



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Measurement Record:

Lead under Test	Level (±kV)	Coupling Direct/Clamp	Observations (Performance Criterion)	Result
L	± 2.0	Direct	А	Pass
N	± 2.0	Direct	А	Pass
L-N	± 2.0	Direct	Α	Pass

Remark:

A: No degradation in performance of the EUT was observed.

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8.5 Surges

 Ourges					
Test Requirement:	EN 61326-1				
Test Method:	EN 61000-4-5				
Test Level:	1kV line to line				
	2kV Live to Earth				
Polarity:	Positive & Negative				
Generator source	2Ω (line-line coupling)				
impedance:	12Ω (line-earth coupling)				
Interval:	60s between each surge				
No. of surges:	5 positive, 5 negative at 0°, 90°, 180°, 270°.				
Performance Criterion:	В				
Test setup:	BOCM Non-conducted table Ground Reference Plane Ground Reference Plane				
Test Procedure:	 For line-to-line coupling mode, provide a 0.5kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points, and for active line / neutral lines to ground are same except test level is 1kV. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test. Different phase angles are done individually. Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test. 				
Test environment:	Temp.: 26 °C Humid.: 53% Press.: 1012mbar				
Test Instruments:	Refer to section 6 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Pass				



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Measurement Record:

Location	Level(kV)	Polarity	Phase(deg)	Observations	Result
			0°	Α	Pass
L-N 1.0	+,-	90°	Α	Pass	
		180°	Α	Pass	
		270°	А	Pass	

Remark:

A: No degradation in performance of the EUT was observed.

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8.6 Conducted Immunity

Test Requirement:	EN 61326-1					
Test Method:	EN 61000-4-6					
Frequency range:	0.15MHz to 80MHz					
Test Level:	3V rms on AC Ports					
Performance Criterion:	A					
Test setup:	Shielding Room Signal Generator Power Amplifier Fixed Pad Non-conducted Table CND EUT Insulating Support 10cm Ground Reference Plane Ground Reference Plane					
Test Procedure:	1. 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).					
	2. The disturbance signal described below is injected to EUT through CDN.					
	The EUT operates within its operational mode(s) under intended climatic conditions after power on.					
	Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.					
Test environment:	Temp.: 24 °C Humid.: 51% Press.: 1012mbar					
Test Instruments:	Refer to section 6 for details					
Test mode:	Refer to section 5.3 for details					
Test results:	Pass					
	•					

Measurement Record:

Frequency	Injected Position	Level	Modulation	Observations (Performance Criterion)	Result
150kHz to 80MHz	AC Mains	3Vrms	1 kHz, 80 % Amp. Mod, 1 % increment, dwell time=2seconds	Α	Pass

Remark:

A: No degradation in performance of the EUT was observed.

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8.7 Voltage dips and interruptions

Test Requirement: Test Method:	-	-					
Number of Dips / Interruptions: Performance Criterion: 0% of UT (Supply Voltage) for 1 Periods: B; 40% of UT for 10 Periods: C; 70% of UT for 25 Periods: C; 0% of UT for 250 Periods: C; Test setup: EMC Tester EUT Non-conducted table Ground Reference Plane 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Test Instruments: Refer to section 6 for details	Test Requirement:	EN 61326-1					
Interruptions: Performance Criterion: 0% of UT (Supply Voltage) for 1 Periods: B; 40% of UT for 10 Periods: C; 70% of UT for 25 Periods: C; 0% of UT for 250 Periods: C; Test setup: EMC Tester EUT Non-conducted table Ground Reference Plane Test Procedure: 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Test Instruments: Refer to section 6 for details	Test Method:	EN 61000-4-11					
40% of UT for 10 Periods: C; 70% of UT for 25 Periods: C; 0% of UT for 250 Periods: C; Test setup: EMC Tester Fut Non-conducted table Ground Reference Plane Test Procedure: 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Test Instruments: Refer to section 6 for details		3 per Level					
Test Procedure: 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test Instruments: Refer to section 6 for details	Performance Criterion:	0% of UT (Supply Voltage) for 1 Periods: B;					
Test Procedure: 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Test Instruments: Refer to section 6 for details		40% of UT for 10 Periods: C;					
Test setup: Bock Secure Function Fu		70% of UT for 25 Periods: C;					
Test Procedure: 1. The EUT and test generator were setup as shown on above setup photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Temp.: 26 °C Humid.: 53% Press.: 1012mbar Refer to section 6 for details		0% of UT for 250 Periods: C;					
photo. 2. The interruptions are introduced at selected phase angles with specified duration. 3. Record any degradation of performance. Test environment: Temp.: 26 °C Humid.: 53% Press.: 1012mbar Test Instruments: Refer to section 6 for details	Test setup:	Non-conducted table Socm Non-conducted table Ground Reference Plane					
specified duration. 3. Record any degradation of performance. Test environment: Temp.: 26 °C Humid.: 53% Press.: 1012mbar Test Instruments: Refer to section 6 for details	Test Procedure:						
Test environment: Temp.: 26 °C Humid.: 53% Press.: 1012mbar Test Instruments: Refer to section 6 for details							
Test Instruments: Refer to section 6 for details		Record any degradation of performance.					
	Test environment:	Temp.: 26 °C Humid.: 53% Press.: 1012mbar					
Test mode: Refer to section 5.3 for details	Test Instruments:	Refer to section 6 for details					
	Test mode:	Refer to section 5.3 for details					
Test results: Pass	Test results:	Pass					

Measurement Record:

Test Level % U _T	Duration (Periods)	Phase angle	No. of drop out	Observations (Performance Criterion)	Result
0	1	0°, 90°, 180°, 270°	3	Α	Pass
40	10	0°, 90°, 180°, 270°	3	Α	Pass
70	25	0°, 90°, 180°, 270°	3	В	Pass
0	250	0°, 90°, 180°, 270°	3	С	Pass

Remark:

B: No degradation in performance of the EUT was observed.

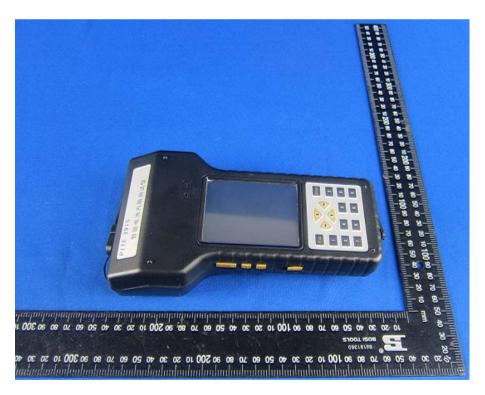
C: Dips to 0%, Duration 250P, EUT stopped operation, After the test to restore

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9 EUT Constructional Details







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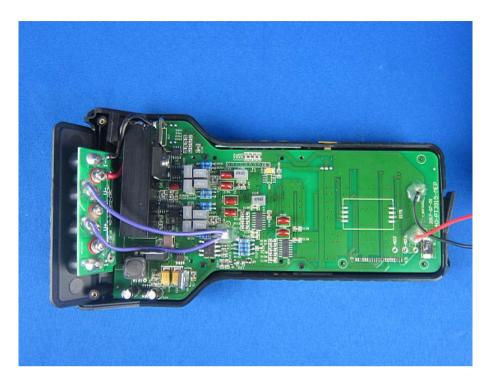


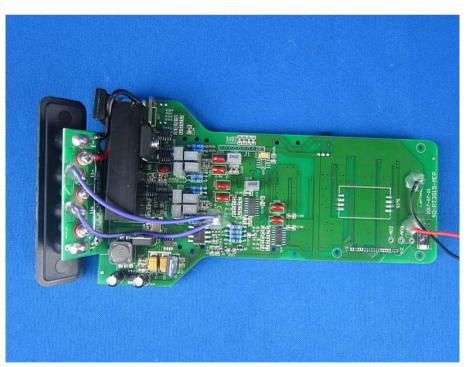
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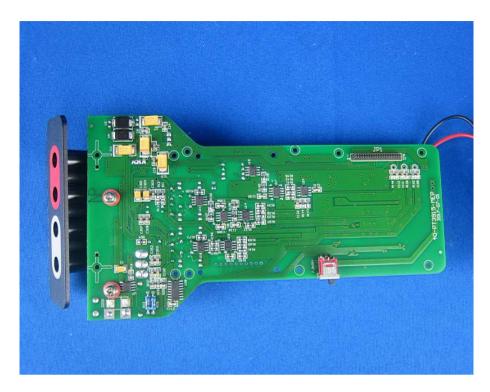
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