

Report No. SH17050022E01



中国认可
检测
TESTING
CNAS L6644

EMC TEST REPORT

Issued to

Shanghai ZLAN Information Technology Co., Ltd.

Product Name : Serial Device Server
Model Name : ZLAN5102
Standard : IEC 61000-4-4
IEC 61000-4-5
Test date : May.11,2017
Issue date : May.15,2017



Tested by Menglan Gu

Approved by Guo Tengyong

Review by Guo Peng

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Change History

Issue	Date	Reason for change
1.0	May.15,2017	First Edition



1. General Information

1.1 Applicant

Shanghai ZLAN Information Technology Co., Ltd.
12 floor D building No. 80 CaoBao road Xuhui District Shanghai.

1.2 Manufacturer

Shanghai ZLAN Information Technology Co., Ltd.
12 floor D building No. 80 CaoBao road Xuhui District Shanghai.

1.3 Description of EUT

EUT Type.....: Serial Device Server
Model Name: ZLAN5102
Input Voltage.....: AC 220V/50Hz, 0.6W

For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



2. Facilities and Accreditations

2.1 Test Facility

Shanghai Skylabs Co., Ltd. Skylabs Laboratory is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6644. A 9*6*6(m) fully anechoic chamber was used for the radiated spurious emissions test.

2.2 Environmental Conditions

Ambient temperature: 15~35°C

Relative humidity: 30~60%

Atmosphere pressure: 86-106kPa.

2.3 List of Equipments Used

Description	Manufacturer	Model	Serial No.	Expiry Date
EFT/SURGE Generator	TESEQ	NSG 3060	1468	2018.02.24
Burst/EFT Datalogging Coupling Clamp	TESTQ	CDN 3425	1736	2018.02.23
Automatic Step Transformer	TESEQ	INA 6502-CIB	197	2018.02..24

NOTE:

Equipments listed above have been calibrated and are in the period of validation.



3. Test Mode

Test Mode

During the test, The EUT is in Typical working with full load.

Display screen is sparkling.



4. Immunity Tests

Performance criteria:

Performance A: Normal performance within limits specified by the manufacture, requestor or purchaser.

Performance B: Temporary loss of function or degradation of performance which ceases after the disturbance ceases, and from which the equipment under test recovers its normal performance, without operator intervention;

Performance C: Temporary loss of function or degradation of performance, the correction of which requires operator intervention;

4.1 Electrostatic Discharge Immunity

4.1.1 Test Specification

Specification	Value
Basic Standard	EN 61000-4-4
Test Voltage	AC Power Port: 3kV, Signal port:2KV
Polarity	Positive / Negative
Impulse Frequency	5kHz
Impulse Wave Shape	5/50ns
Burst Duration	15ms
Burst Period	300ms
Test Duration	> 1min

4.1.2 Test Procedure

The EUT is tested with 2000V discharges to the AC power input leads and with 3000V discharges to the signal port.

Both positive and negative polarity discharges are applied.

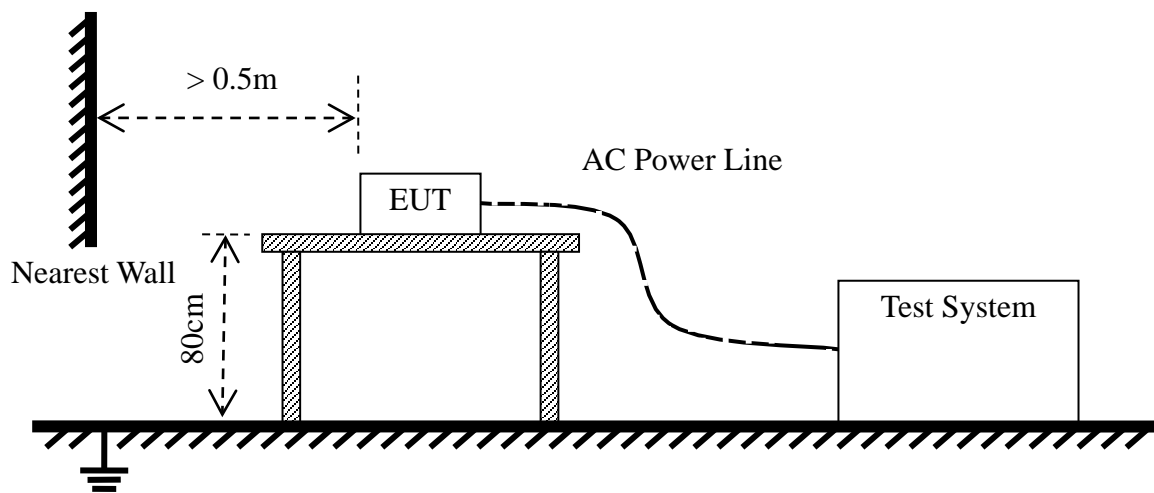
The length of the "hot wire" from the coaxial output of the EFT generator to the terminals on the EUT should not exceed 1m.

The duration time of each test sequential is 1min.

The transient / burst waveform is in accordance with EN 61000-4-4, 5/50ns..



4.1.3 Test Setup



4.1.4 Test Result

The EUT performance complies with the performance criteria .

Test Point	Polarity	Test Level (kV)	Verdict
AC Port, L	+ / -	2	A
AC Port, N	+ / -	2	A
AC Port, L-N	+ / -	2	A
Signal Port, 485	+ / -	3	A
Signal Port, LAN	+ / -	3	A



4.2 Surge Immunity

4.2.1 Test Specification

Specification	Value
Basic Standard	EN 61000-4-5
Waveform	Voltage: 1.2/50 μ s; Current: 8/20 μ s
Test Voltage	AC Power Port: line to line :2 kV
Polarity	Positive / Negative
Phase Angle	0° , 90° , 180° , 270°
Repetition Rate	60 seconds
Times	5 pulses/polarity

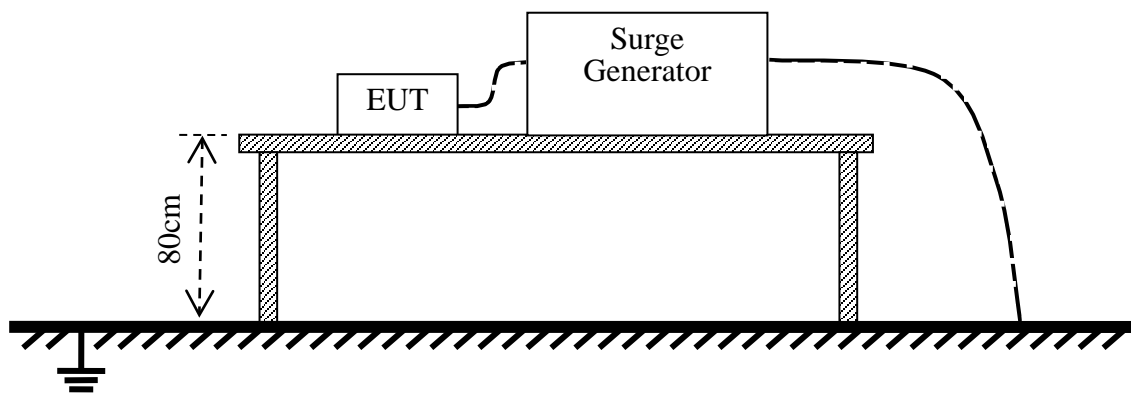
4.2.2 Test Procedure

The EUT and the auxiliary equipment are placed on a table of 0.8m heights above a metal ground reference plane. The size of ground plane is greater than 1m*1m and project beyond the EUT by at least 0.1m on all sides. The ground plane is connected to the protective earth. The length of power cord between the coupling device and the EUT is less than 2 meters (provided by the manufacturer).

The EUT is connected to the power mains through a coupling device that directly couples the surge interference signal. The surge noise is applied synchronized to the voltage phase at the zero crossing and the peak value of the AC voltage wave (positive and negative).

The surges are applied line to line . Steps up to the test level specified increased the test voltage. All lower levels including the selected test level are tested. The polarity of each surge level included positive and negative test pulses.

4.2.3 Test Setup





4.2.4 Test Result

Test Point	Coupling Line	Polarity	Voltage (kV)	Verdict	Result
AC Power Port	Line to Line	+ / -	2	A	Pass



Annex A EUT photo



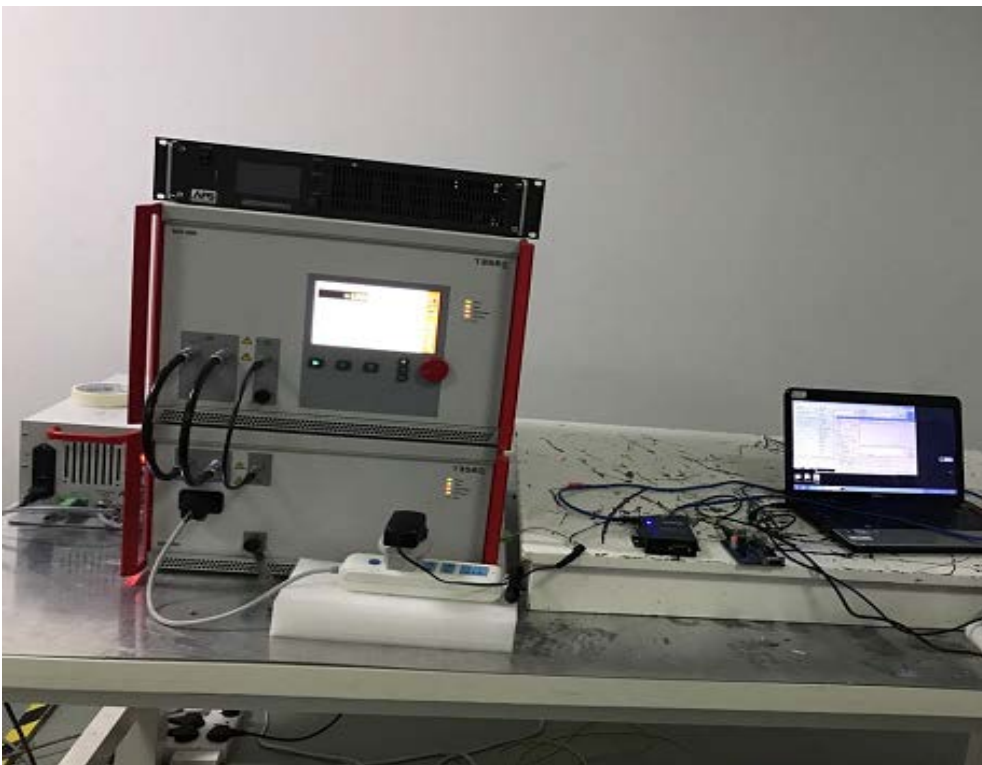


Annex B Photos of Test Setup

1. EFT



2. Surge



**** END OF REPORT ****