



EMC Test Report

EUT: Teletronics Surge Protection Board
Type/Model: 17-107
Consigner: Teletronics International INC.
Manufacturer: Teletronics International INC.
Report No.: CESI06-WM0850-E

**Safety & EMC Testing Center
of Electronic Industry**

Test Result

EUT: Teletronics Surge Protection Board

Type/Model: 17-107

Trade Mark: teletronics

Manufacturer: Teletronics International INC.

Consigner: Teletronics International INC.

Test Item	Test Specification	Criterion	Test Result
Surge	IEC 61000-4-5: 1995	C	PASS



Evaluation of Test Result:

The equipment under test (EUT) was found to be compliance with the requirement of the above standards.

Issued Date: Jul 25, 2006

Tested by:  (Liu Jianpeng, Project Engineer)

Reviewed by:  (Kong Bin, Team Leader)

Approved by:  (Chen Shigang, Technical Manager)
 (Hu Jingsen, Lab Director)

Note: The test results apply only to the EUT. This report shall not be reproduced in partial.

Contents

Part 1 General Information

1.1	Consigner.....	3
1.2	Period of Test	3

Part 2 Description of EUT

2.1	General Information.....	3
2.2	General Description.....	3
2.3	Operation Mode during the Test	3
2.4	Associated Equipment.....	4
2.5	Configuration of Tested System.....	4

Part 3 Test Specification

3.1	Reference Standard	5
3.2	Performance Criterion for Immunity Tests	5

Part 4 Emission Test Results

4.1	Surge Immunity Test.....	6
	Annex: Test Setup Photos.....	8

Part 1 General Information

1.1 Consigner

Name: Teletronics International INC.
Address: 2 Choke Cherry Road Rockville, MD 20850, USA
Telephone: +1-301.309.8500
Contact Person: Mr. Steve Lin

1.2 Period of Test

Jun 28, 2006 ~ Jul 04, 2006

Part 2 Description of EUT

2.1 General Information

Manufacturer: Teletronics International INC.
Address: 2 Choke Cherry Road Rockville, MD 20850
Name of EUT: Teletronics Surge Protection Board
Type/Model: 17-107
Trade Mark: teletronics
Serial No.: /

2.2 General Description

Equipment Mobility: Table-top Floor-standing
 Combined table-top and floor-standing Others
Grounding: Grounded to earth through the power cord
 Grounded to earth through enclosure of EUT
 Not Grounded Others
Power Rating: DC 48V

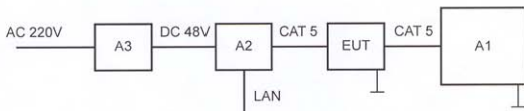
2.3 Operation Mode during the Test

Mode 1: EUT was connected with POE and TT5800/2400/VERSA. POE supplied power normally, TT5800/2400/VERSA was working at 802.11 a/b/g AP mode and waiting for association of other wireless subscriber units.

2.4 Associated Equipment

No.	Name	Type/Model	Serial No.	Manufacturer
A1	TT5800/2400/VERSA	/	/	Teletronics
A2	POE	/	/	Teletronics
A3	SWITCHING ADAPTOR	MITSUOKA-K4805T	/	Teletronics

2.5 Configuration of Tested System



Part 3 Test Specification

3.1 Reference Standard

IEC 61000-4-5: 1995

Electromagnetic compatibility (EMC) – Part 4: Testing and measurement techniques – Section 5: Surge immunity test

3.2 Performance Criterion for Immunity Tests

IEC 61000-4-5 defines as follows:

Performance Criteria A: normal performance within the specification limits.

Performance Criteria B: temporary degradation or loss of function or performance which is self-recoverable.

Performance Criteria C: temporary degradation or loss of function or performance which requires operator intervention or system reset.

Performance Criteria D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data.

Part 4 Emission Test Results

4.1 Surge Immunity Test

4.1.1 Immunity Limits

Level	Open-circuit test voltage (kV)
1	0.5
2	1.0
3	2.0
4	4.0
X	Special

NOTE: X is an open class. This level can be specified in the product specification.

4.1.2 Utilized Test Equipment

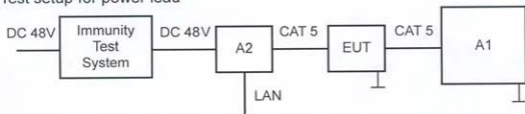
Instrument	Model	Manufacturer	Serial No.	Valid Period of Calibration
Immunity Test System	EMCPRO	KEYTEK	9802246	2007.5.7
CDN	CM-TELCD	KEYTEK	9712467	/

4.1.3 Test Location

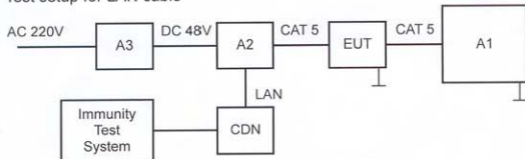
Immunity Testing Room: Located in Room 311.

4.1.4 Test Setup

Test setup for power lead



Test setup for LAN cable



4.1.5 Test Result

Surge Immunity Test				
Name of EUT	Teletronics Surge Protection Board		Type/Model	17-107
Standard	IEC 61000-4-5:1995		Serial No.	/
Criterion	C		Climate Condition:	
Operation Mode	Mode 1		Temperature:	24 °C
Test Date	2006-07-		Relative Humidity:	49 %
Test Engineer	Liu Jianpeng		Atm Pressure:	101 kPa
Test Parameters				
1.2/50 μ s(Open-circuit Voltage); 8/20 μ s (Short-circuit Current); Repetition Rate: 1 per min				
Test Result				
Test Voltage (V)	Phase	Surge Injected to	Times	Description of Test and Result
± 500	/	Pos to Neg	5	Operated normally PASS
± 1000	/	Pos to Neg	5	After testing, power circuit of TT5800/2400/VERSA worked at protection mode. System came back to normal status after system reset. PASS
± 1500	/	Pos to Neg	5	
± 2000	/	Pos to Neg	5	
± 500	/	T1-R1, T2-R2	5	Operated normally PASS
± 1000	/	T1-R1, T2-R2	5	Operated normally PASS
± 1500	/	T1-R1, T2-R2	5	Operated normally PASS
± 500	/	T1-PE, T2-PE	5	Operated normally PASS
± 1000	/	T1-PE, T2-PE	5	Operated normally PASS
± 2000	/	T1-PE, T2-PE	5	Operated normally PASS
± 3000	/	T1-PE, T2-PE	5	Operated normally PASS