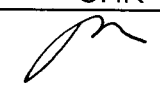



# FPS1000 - 48

## TEST DATA

### EN61000

DWG: IA599-58-01		
APPD	CHK	DWG
Doron P. Nov-18-04	 03-11-04	 03.11.04.

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The above data is typical value.

The values are considered to be actual capability data.

**1.ELECTRO-STATIC DISCHARGE TEST**  
(EN61000-4-2)

(1)Equipment used

SCHAFFNER NSG435

Discharge resistance: 330 Ohm Capacity: 150pF

(2)Test conditions

Input voltage: Rated

Output voltage: Rated

Output current: 100%

Polarity: -,+

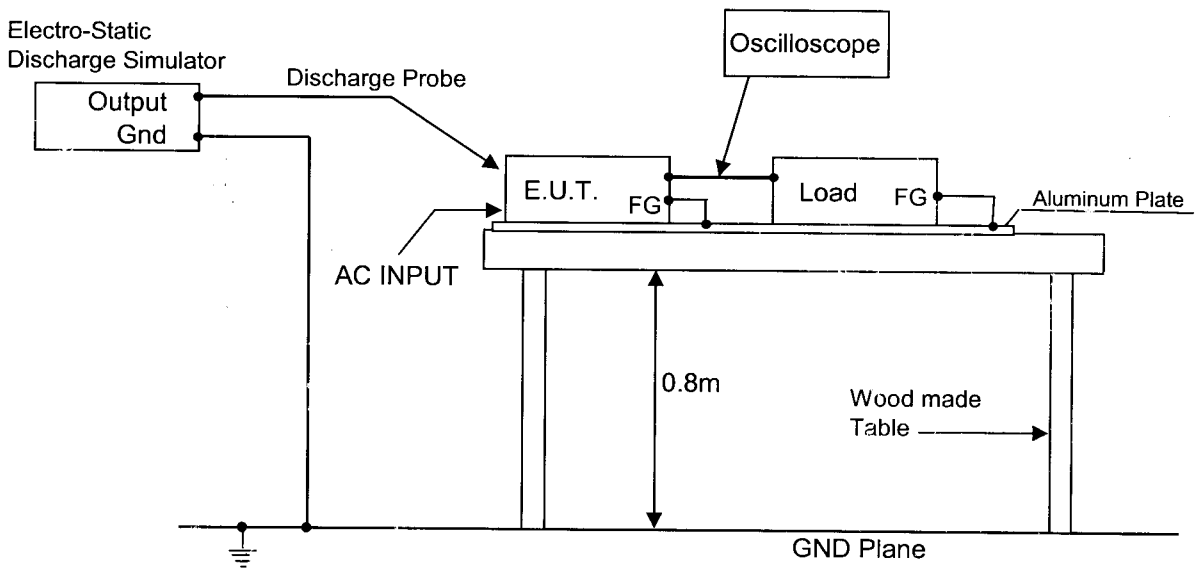
Number of tests: 10 times

Discharge interval: >1 Second

(3)Test method and Device test point

Contact discharge: FG,Case screw

Air discharge: Input and Output terminal



(4)Acceptable conditions

- 1.Output voltage regulation not to exceed  $\pm 5\%$  of initial (before test) value during test.
- 2.Output voltage to be within regulation specification after the test.
- 3.Along with 1 and 2, no discharge of fire or smoke, as well as no output failure.

(3)Test Result

Contact Discharge (Kv)	FPS1000-48	Air Discharge (Kv)	FPS1000-48
4	PASS	8	PASS

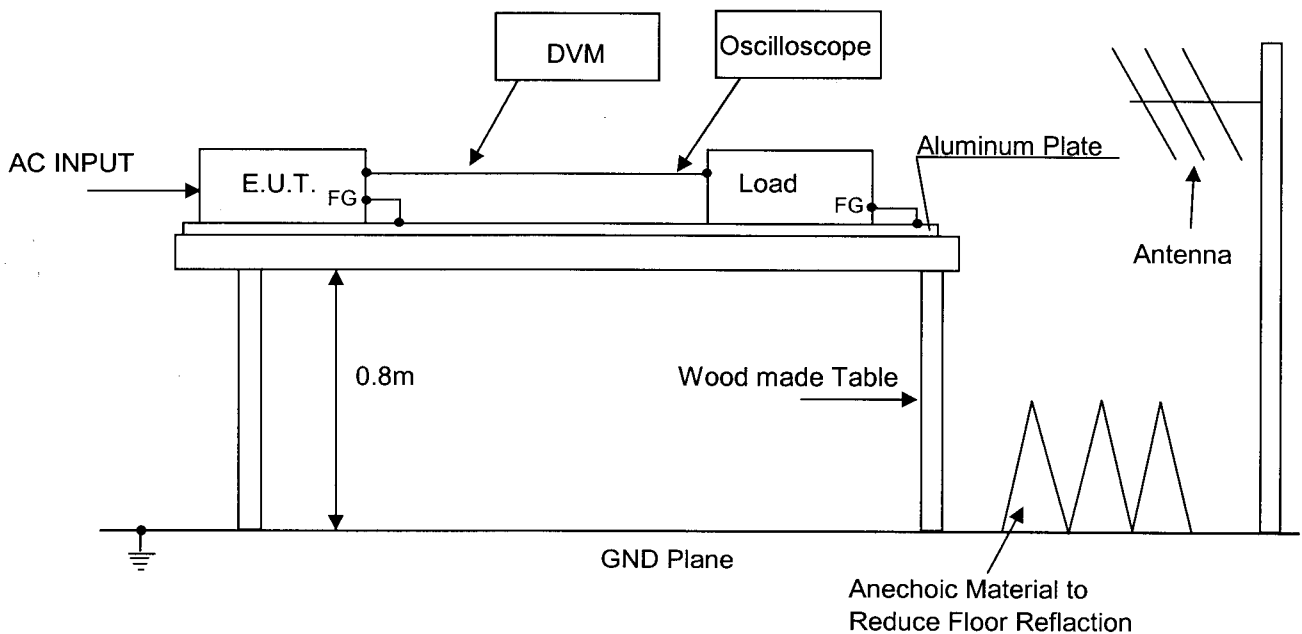
**2.ELECTROMAGNETIC RADIATED SUSCEPTIBILITY TEST  
(EN61000-4-3)**

**(1)Equipment used**

Synthesized RF signal generator 10 kHz- 1.05GHz: Fluke 6061A;Field Monitor: Amplifier Research FM1000; RF amplifier: Amplifier Research 150L; Antenna, biconical, high power 20-300 MHz: A.H. Systems Inc. SAS-200/543; Amplifier RF, 500MHz to 1000MHz: Hermon Labs A-120; Power sensor: Boonton 51075; Amplifier 1 to 4GHz: AS 0104-55/55B; Coupling-decoupling network: Hermon Lab. 50141S1; Power meter, RF: Boonton 4200; Antenna, double-ridged waveguide horn: EMC Test System 3115;

**(2)Test conditions**

Input voltage:	Rated	Output voltage:	Rated
Output current:	100%	Amplitude Modulated:	80%,1kHz
Electromagnetic Frequency:	80~1000MHz	Ambient temperature:	25°C
Distance:	2.4m	Wave Angel:	Horisontal and Vertical
Sweep condition:	1.0% Step Up,2.0 second Hold		
Test Angle:	Top/Botton,Both Sides,Front/Back		



**(3)Acceptable conditions**

- 1.Output voltage regulation not to exceed  $\pm 5\%$  of initial (before test) value during test.
- 2.Output voltage to be within regulation specification after the test.
- 3.Along with 1 and 2, no discharge of fire or smoke, as well as no output failure.

**(4)Test Result**

Radiated Field Strength (V/m)	FPS1000-48
3	PASS

**3.ELECTRICAL FAST TRANSIENT BURST TEST  
(EN61000-4-4)**

(1)Equipment used

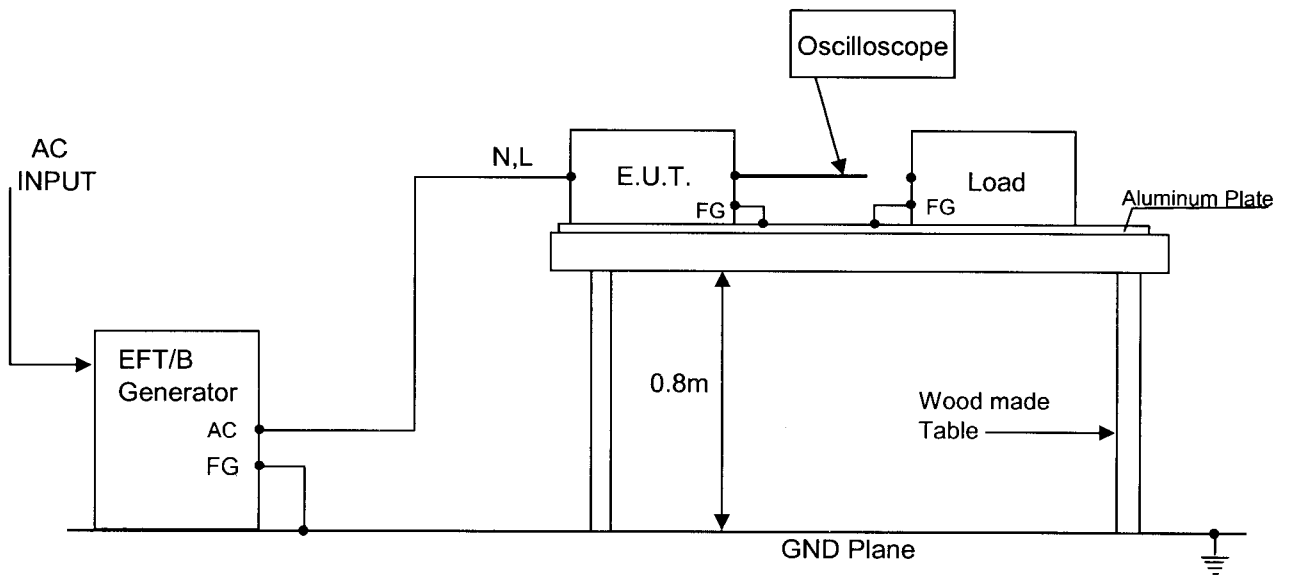
EFT/B Generator: SCHAFFNER NSG2025

(2)Test conditions

Input voltage:	Rated	Output voltage:	Rated
Output current:	100%	Test time:	1 minute
Polarity:	-,+	Ambient temperature:	25°C
Number of tests:	3 times		

(3)Test method and Device test point: Neutral (N),Line (L), Ground (FG)

Apply pulses from EFT/B Generator to N,L,FG separately,as well as,all at the same time.



(4)Acceptable conditions

- 1.Output voltage regulation not to exceed  $\pm 5\%$  of initial (before test) value during test.
- 2.Output voltage to be within regulation specification after the test.
- 3.Along with 1 and 2, no discharge of fire or smoke, as well as no output failure.

(5)Test Result

Test Voltage (kV)	Repitition Rate (kHz)	FPS1000 - 48
1	5	PASS
2	5	PASS

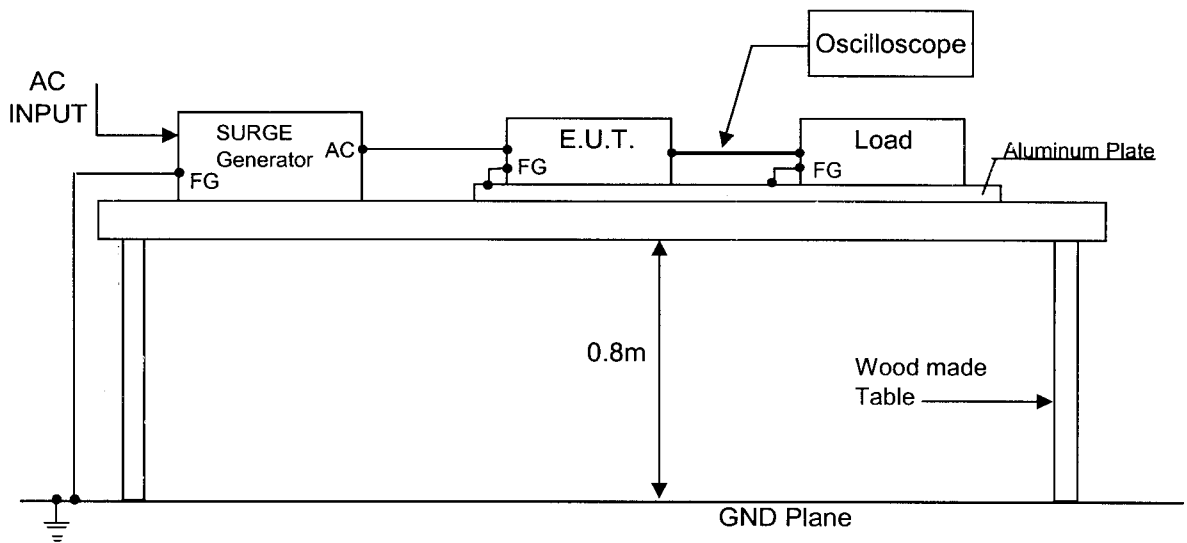
**4.SURGE TEST**  
(EN61000-4-5)

(1)Equipment used

Surge Generator:               SCHAFFNER-NSG651  
 Coupling impedance:        Common - 12 OHm  
                                       Normal - 2 OHm  
 Coupling capacitance:       Common - 9 uF  
                                       Normal - 18 uF  
 Coupling network:            SCHAFFNER-CDN110

(2)Test method and devise test point

Input voltage:	Rated	Output voltage:	Rated
Output current:	100%	Number of tests:	5 times
Polarity:	-,+	Mode:	Common, Normal
Phase:	0,90 DEG.	Ambient temperature:	25°C



(4)Acceptable conditions

- 1.Output voltage regulation not to exceed  $\pm 5\%$  of initial (before test) value during test.
- 2.Output voltage to be within regulation specification after the test.
- 3.Along with 1 and 2, no discharge of fire or smoke, as well as no output faulre.

(5)Test Result

Test Voltage (kV) Common	FPS1000-48	Test Voltage (kV) Normal	FPS1000-48
1.0	PASS	1.0	PASS
2.0	PASS	2.0	PASS
4.0	PASS		

**5.CONDUCTED SUSCEPTIBILITY TEST  
(EN61000-4-6)**

**(1)Equipment used**

RF Signal Generator 10kHz-1050MHz:  
RF Amplifier 10kHz-220MHz,150W:  
Coupling/Decoupling Network:

Fluke,6061A  
Amplifier Research,150L  
HL CDN 801-M3

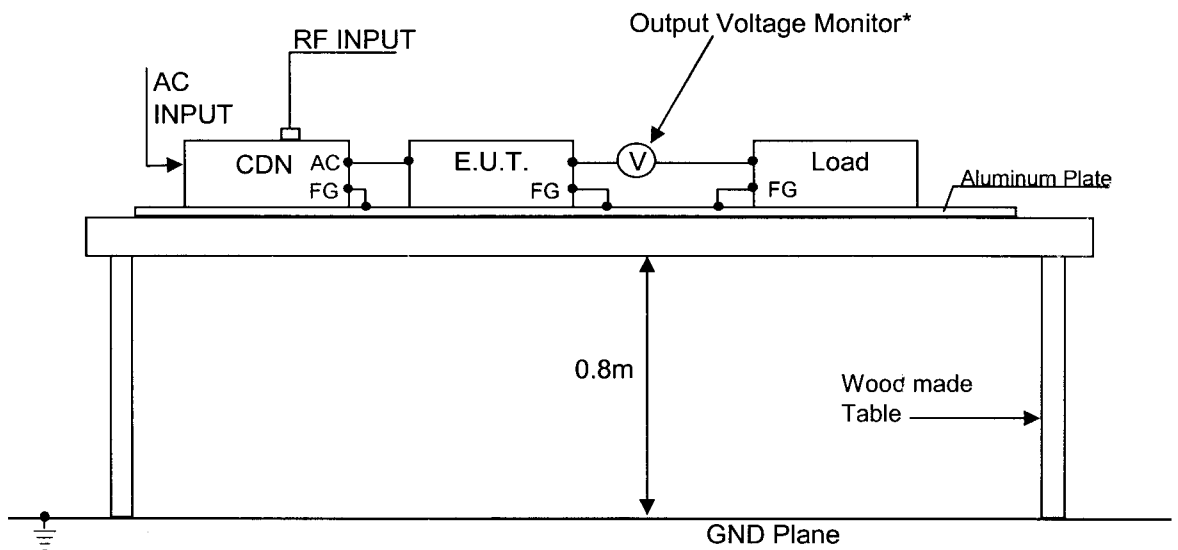
**(2)Test Condition:**

Input voltage: Rated                      Output voltage: Rated  
Output current: 100%                      Electromagnetic  
Frequency: 150kHz~80MHz

Sweep Condition: 1.0% Step Up, 2.0 Seconds Hold

Ambient temperature:25°C

**(2)Test Method:**



\*Used Analog Voltage Meter

**(4)Acceptable conditions**

- 1.Output voltage regulation not to exceed  $\pm 5\%$  of initial (before test) value during test.
- 2.Output voltage to be within regulation specification after the test.
- 3.Along with 1 and 2, no discharge of fire or smoke, as well as no output failure.

**(5)Test Result**

Voltage Level (V)	FPS1000-48
1	PASS
2	PASS
3	PASS

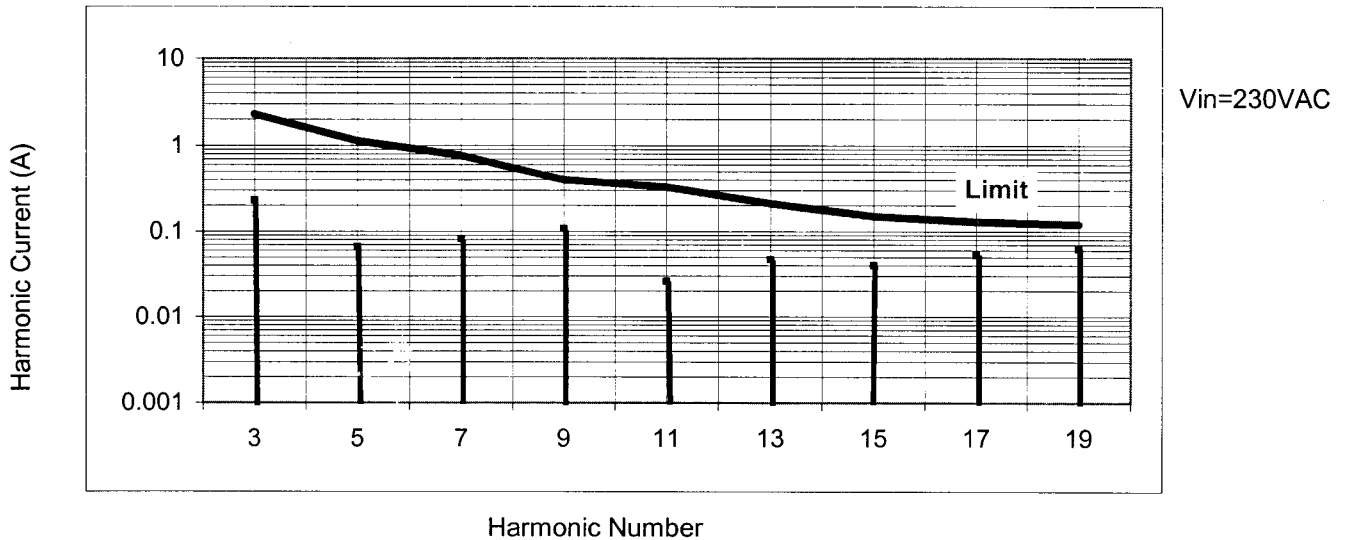
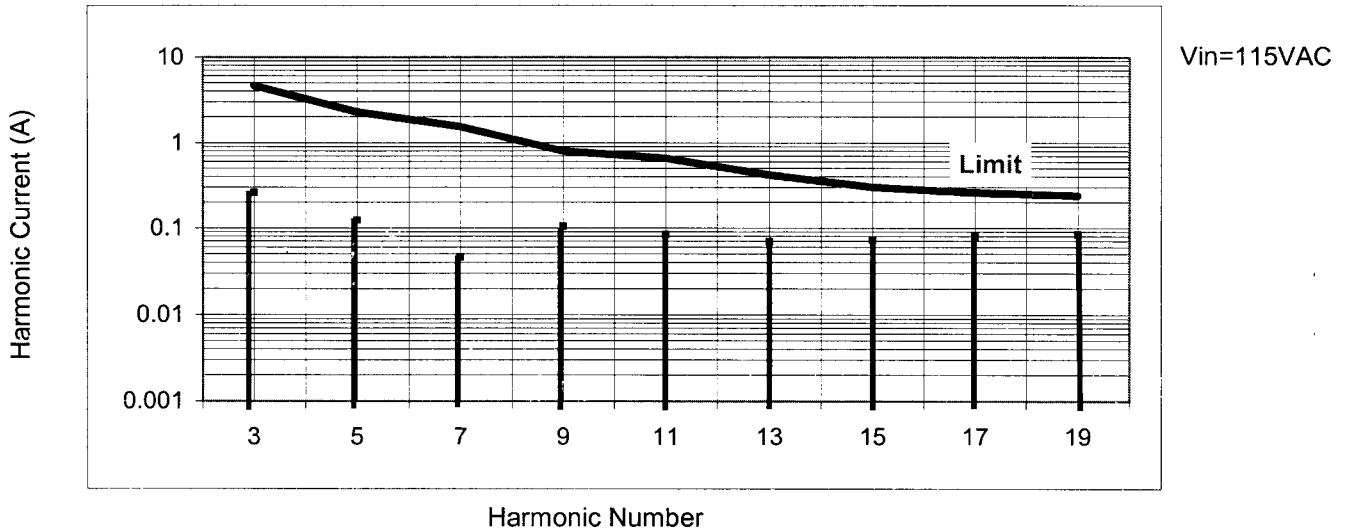
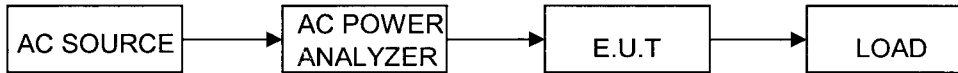
**6.INPUT CURRENT HARMONICS TEST**  
(EN61000-3-2,ClassA)

Model:

(1)Equipment used  
AC Power Analyzer:  
PACS-1(California Instruments)  
AC Source:  
5001 IX (California Instruments)

(2)Test conditions:  
Input voltage: 115VAC;230VAC  
Output current: 100%

(3)Test Method:



Vin	HARMONICS								
	3	5	7	9	11	13	15	17	19
115	4.6	2.28	1.54	0.8	0.66	0.42	0.3	0.26	0.24
VAC	0.26	0.12	0.05	0.11	0.08	0.07	0.07	0.08	0.08
230	2.3	1.14	0.77	0.4	0.33	0.21	0.15	0.13	0.12
VAC	0.23	0.07	0.08	0.11	0.03	0.05	0.04	0.05	0.06

Input Current Harmonics EN61000-3-2 Limit

Input Current Harmonics-Measurment