

# GEN1500 SERIES TEST DATA EN61000

DWG: IA575-58-01		
APPD	CHK	DWG
Doron P.	Alex Ch.	MICHAEL G.
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 **NEMIC-LAMBDA LTD.**

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The above data is typical value data.  
The values are considered to be actual capability data.

**NEMIC-LAMBDA**

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

**(1) Equipment used**

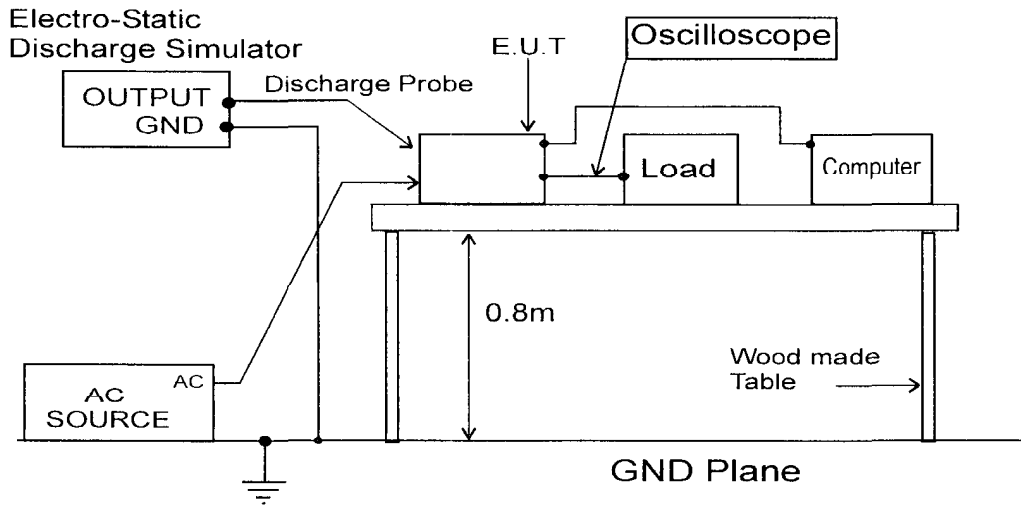
SCHAFFNER NSG435  
Discharge resistance : 330 Ohm Capacity : 150 pF

**(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.

**(5) Test Result**

Contact Discharge (kV)	GEN6-200	GEN100-15	GEN600-2.6	Air Discharge (kV)	GEN6-200	GEN100-15	GEN600-2.6
2	PASS	PASS	PASS	4	PASS	PASS	PASS
4	PASS	PASS	PASS	8	PASS	PASS	PASS

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

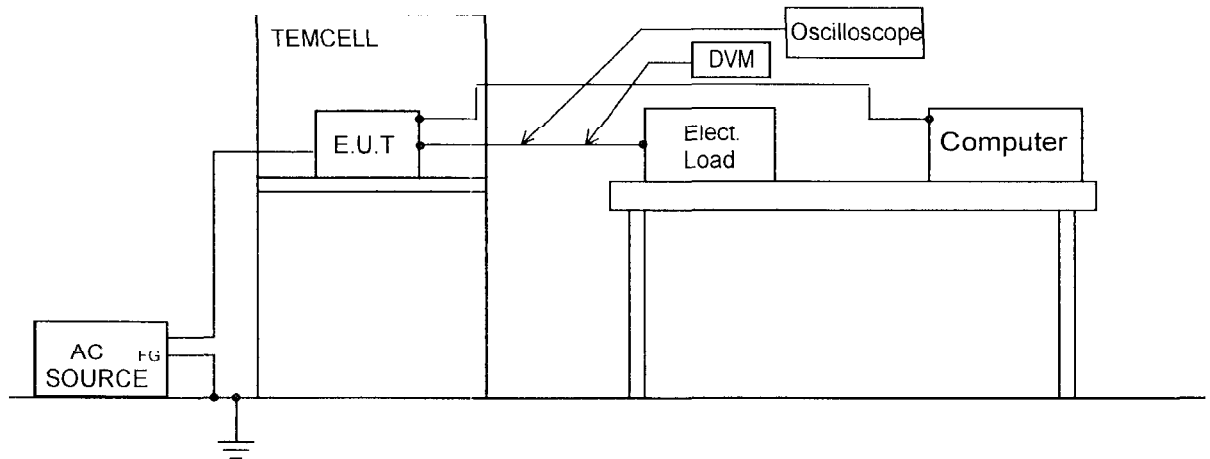
(1) Equipment used

Radiated immunity test chamber: 1JTEMCELL,Wayne Kerr  
 Electronic load: PLZ1003W , KIKUSUI  
 Oscilloscope: 3365A , PHILIPS  
 DVM: 8840A, FLUKE

(2) Test conditions

Input voltage : Rated                      Output voltage :            Rated  
 Output current : 100%                      Amplitude Modulated: 80%, 1KHz  
 Electromagnetic                                      Ambient temperature: 25°C  
 Frequency:                      80~1000MHz

Sweep Condition: 1.5 x 10<sup>-3</sup> Decade/Second, 1.0 Second Hold



(3) Acceptable conditions

1. Output voltage regulation not to exceed ± 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)	GEN6-200	GEN100-15	GEN600-2.6
1	PASS	PASS	PASS
2	PASS	PASS	PASS
3	PASS	PASS	PASS

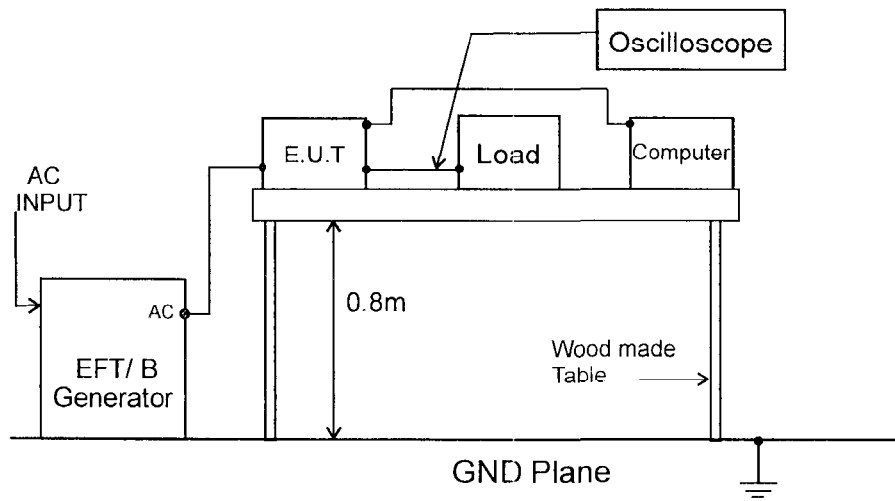
### 3. ELECTRICAL FAST TRANSIENT BURST TEST (EN61000-4-4)

(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  
N,L,FG  
Apply 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)	Repetition Rate(kHz)	GEN6-200	GEN100-15	GEN600-2.6
0.5	5	PASS	PASS	PASS
1	5	PASS	PASS	PASS

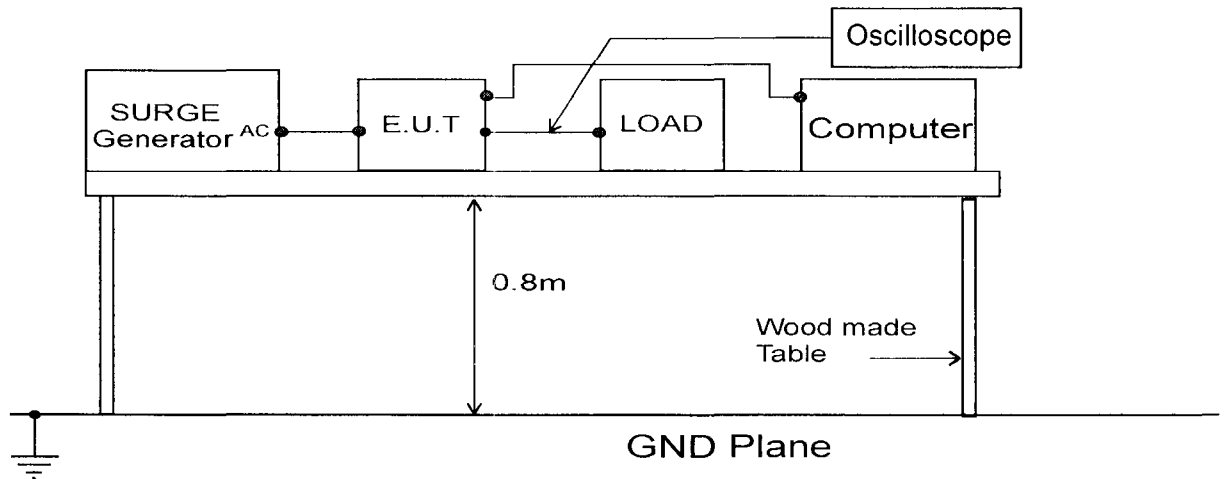
**4. SURGE TEST  
(EN61000-4-5)**

(1) Equipment used

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

(2) Test method and device 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 failure.

(5) Test Result

Test Voltage (kV) Common	GEN6-200	GEN100-15	GEN600-2.6	Test Voltage (kV) Normal	GEN6-200	GEN100-15	GEN600-2.6
0.5	PASS	PASS	PASS	0.5	PASS	PASS	PASS
1.0	PASS	PASS	PASS	1	PASS	PASS	PASS
2.0	PASS	PASS	PASS				

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

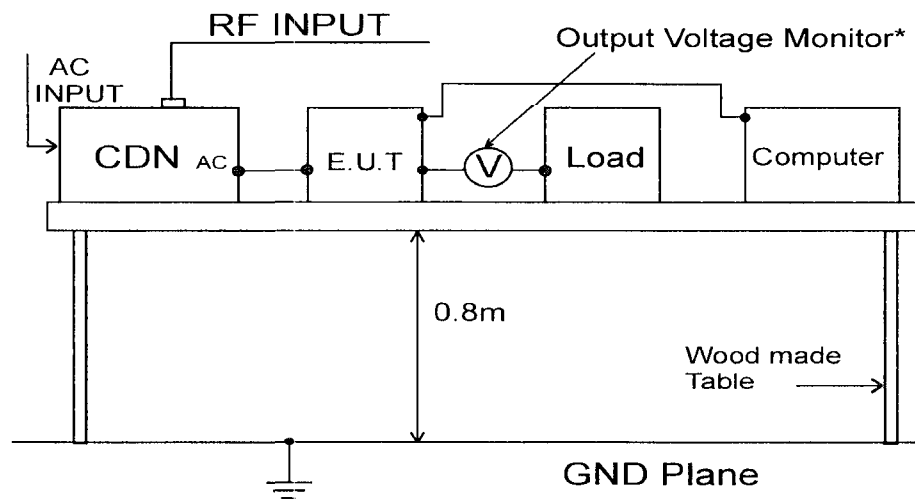
(1) Equipment used

RF Signal Generator 10kHz-1050 MHz	( Fluke,6061A )
RF Amplifier 10 kHz-220 MHz,150W	( Amplifier Research, 150L )
Coupling/Decoupling Network	(HL CDN 801-M3)

(2) Test conditions

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		

(3) Test method



\*Used Oscilloscope or 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)	GEN6-200	GEN100-15	GEN600-2.6
1	PASS	PASS	PASS
2	PASS	PASS	PASS
3	PASS	PASS	PASS

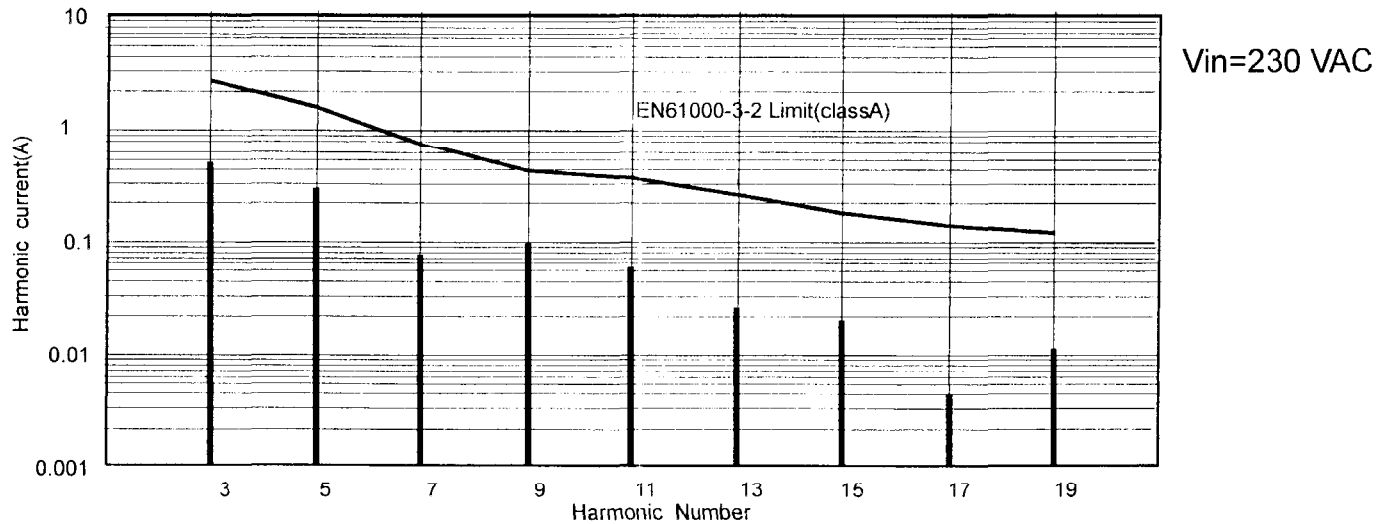
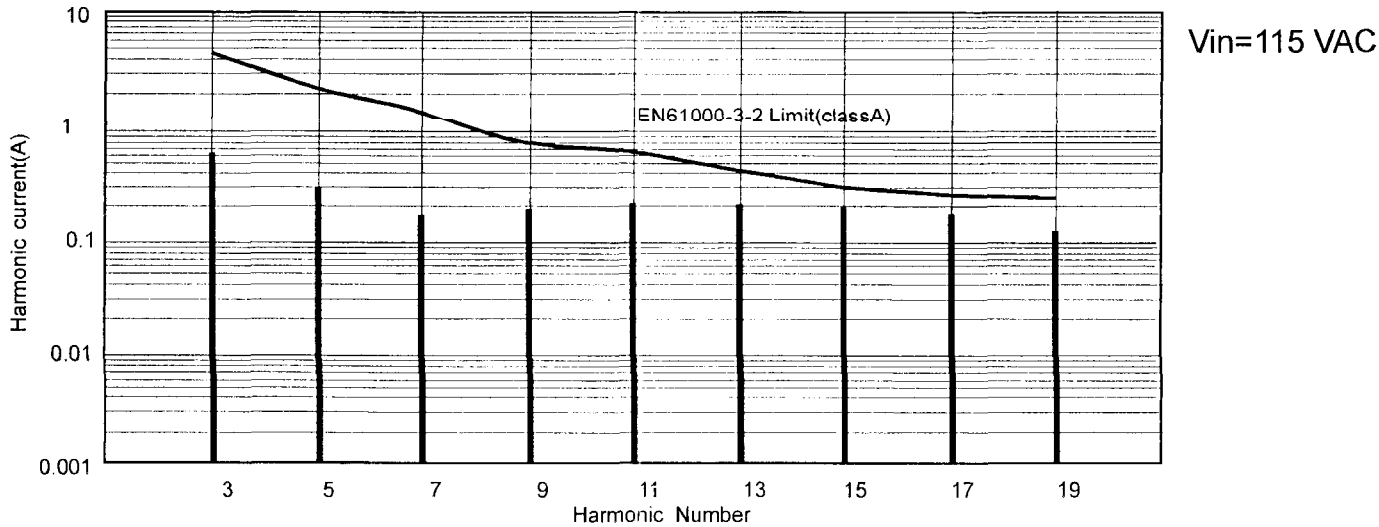
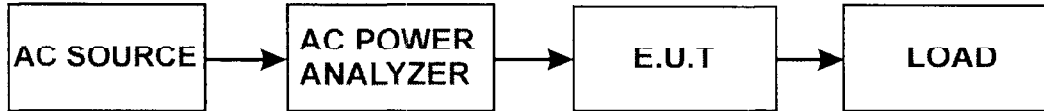
6. INPUT CURRENT HARMONICS TEST  
 (EN61000-3-2, Class A)  
 M O D E L : GEN20-76

**GEN1500**

- (1) Equipment used  
 AC POWER ANALYSER :  
 PACS-1(CALIFORNIA INSTRUMENTS)  
 AC SOURCE:  
 5001 IX (CALIFORNIA INSTRUMENTS)

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

- (3) Test method



Vin	Harmonics								
	3	5	7	9	11	13	15	17	19
115 VAC	4.6	2.28	1.54	0.8	0.66	0.42	0.30	0.26	0.24
	0.643	0.296	0.172	0.185	0.219	0.214	0.199	0.171	0.137
230 VAC	2.30	1.14	0.77	0.40	0.33	0.21	0.15	0.13	0.12
	0.473	0.276	0.076	0.097	0.054	0.024	0.019	0.004	0.012

Input Current Harmonics EN61000-3-2 limit

Input Current Harmonics -Measurement