DRL100-1

TEST DATA

IEC61000 SERIES

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Terminology used

FG ····· Frame GND

※ Test results are reference data based on our standard measurement condition.

1. Electrostatic Discharge Immunity Test (IEC61000-4-2)

MODEL : DRL100-1

(1) Equipment Used

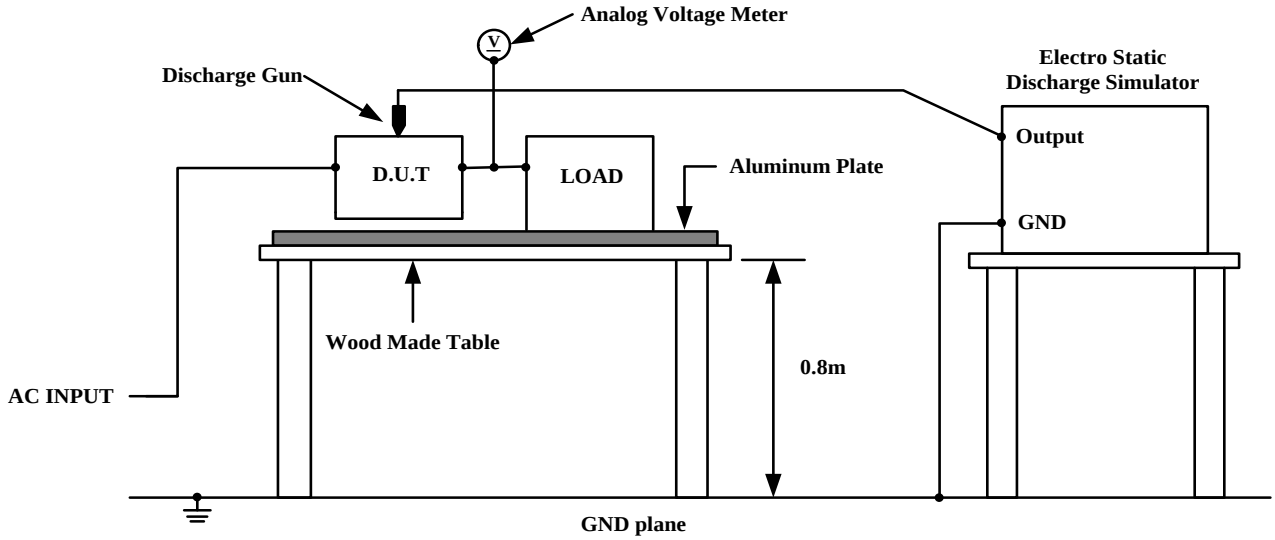
Electro Static Discharge Simulator	: NSG435	(SCHFFNER)
Discharge Resistance	: 330Ω	
Capacity	: 150pF	

(2) Test Conditions

Input Voltage	: 115, 230VAC	Output Voltage	: Rated
Output Current	: 100%	Polarity	: +, −
Test Times	: 10 times	Discharge Interval	: ＞1 second
Ambient Temperature	: 25℃		

(3) Test Method and Device Test Point

Air Discharge : Input and output terminal



(4) 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, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Level 4)

Air Discharge(kV)	DRL100-24-1
2	PASS
4	PASS
8	PASS

2. Radiated Radio-Frequency Electromagnetic Field Immunity Test (IEC61000-4-3)

MODEL : DRL100-1

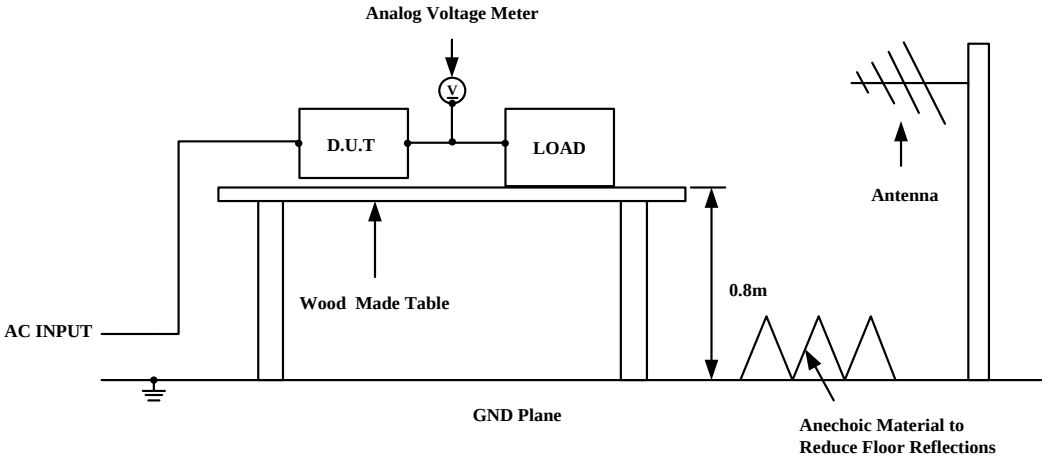
(1) Equipment Used

SML 03(RS CORPORATION)
HL 046(RS CORPORATION)
AR500W 1000A(AR CORPORATION)
FM5004(AR CORPORATION)
FP6001(AR CORPORATION)

(2) Test Conditions

Input Voltage	: 115, 230VAC	Output Voltage	: Rated
Output Current	: 100%	Amplitude Modulated	: 80%, 1kHz
Electromagnetic Frequency	: 80～1000MHz	Ambient Temperature	: 25℃
Wave Angle	: Horizontal and Vertical	Distance	: 3.0m
Sweep Condition	: 1.0%Step Up, 2.8 Seconds Hold		
Test Angle	: Top/Bottom, Both Sides, Front/Back		

(3) Test Method



(4) 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, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Level 3)

Radiation Field Strength (V/m)	DRL100-24-1
1	PASS
3	PASS
10	PASS

3. Electrical Fast Transient / Burst Immunity Test (IEC61000-4-4)

MODEL : DRL100-1

(1) Equipment Used

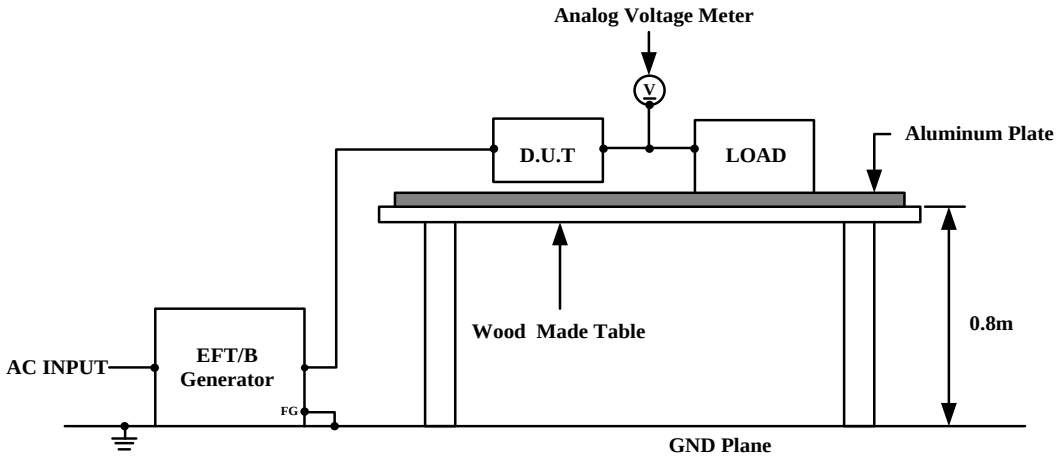
EFT/B Generator : FNS-100L (NOISEKEN) , 6100 (SCHAFFNER)

(2) Test Conditions

Input Voltage	: 115, 230VAC	Output Voltage	: Rated
Output Current	: 100%	Test Time	: 1 minute
Polarity	: +, −	Ambient Temperature	: 25℃
Number of Tests	: 3 times		

(3) Test Method and Device Test Point

Apply to (N, L), (N), (L)



(4) Acceptable Conditions

1.Output voltage regulation not to exceed ±5% of initial (before test) value during test.
2. Output voltage to be within output voltage regulation specification after the test.
3. Along with 1 and 2, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Level 4)

Test Voltage (kV)	Repetition Rate (kHz)	DRL100-24-1
0.5	5	PASS
1	5	PASS
2	5	PASS
4	5	PASS

4. Surge Immunity Test (IEC61000-4-5)

MODEL : DRL100-1

(1) Equipment Used

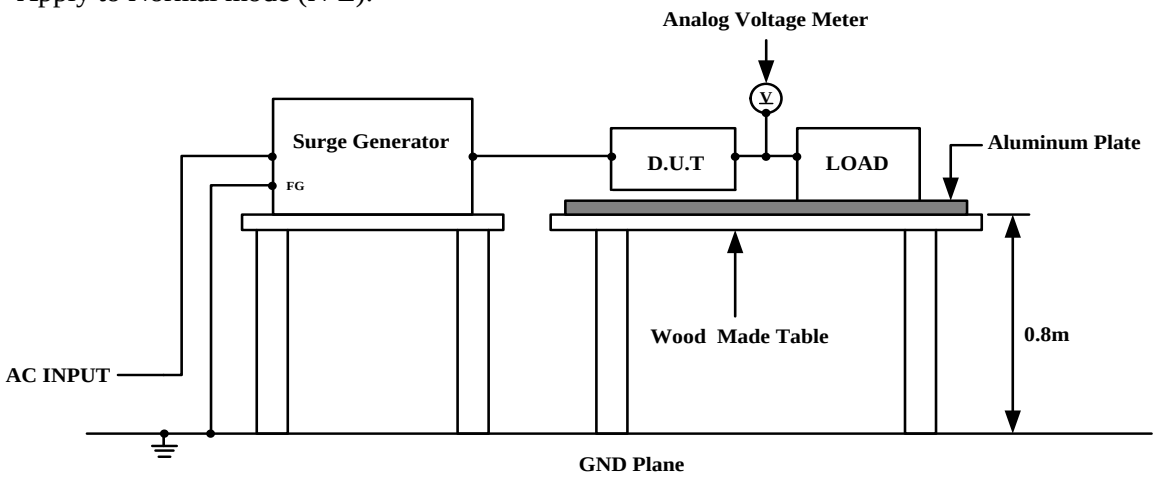
Surge Generator	: 6100 (SCHAFFNER)				
Coupling Impedance	: Common	12Ω	Coupling Capacitance	: Common	9μF
	Normal	2Ω		Normal	18μF

(2) Test Conditions

Input Voltage	: 115, 230VAC	Output Voltage	: Rated
Output Current	: 0, 100%	Test times	: 3 times
Polarity	: +, −	Mode	: Normal
Phase	: 0, 90 deg	Ambient Temperature	: 25℃

(3) Test Method and Device Test Points

Apply to Normal mode (N-L).



(4) 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, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Normal Mode: level 3)

Normal	
Test Voltage (kV)	**DRL100-24-1**
0.5	PASS
1	PASS
2	PASS

5. Conducted Disturbances Induced by Radio-Frequency Field Immunity Test (IEC61000-4-6)

MODEL : DRL100-1

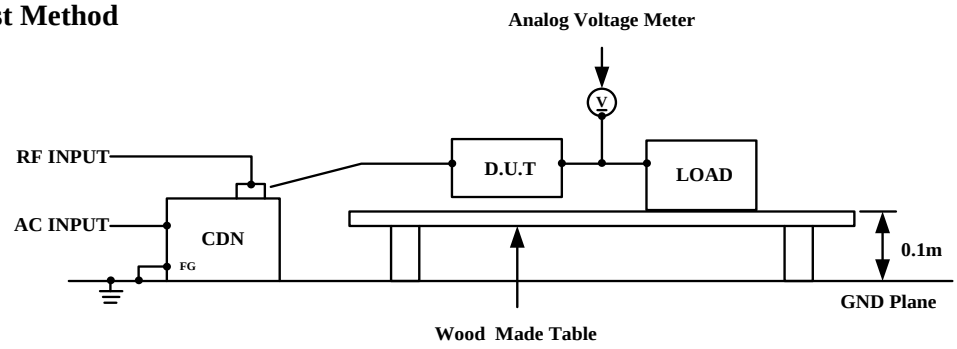
(1) Equipment Used

RF POWER AMPLIFIER : (AR U.S.A)
SIGNAL GENERATOR : IFR 2023A (IFR U.K)

(2) Test Conditions

Input Voltage	:115, 230VAC	Output Voltage	:Rated
Output Current	:100%	Electromagnetic Frequenc	:150kHz～80MHz
Ambient Temperature	:25℃		
Sweep Condition	:1.0%Step Up, 2.8 Seconds Hold		

(3) Test Method



(4) 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, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Level 3)

Voltage Level (V)	DRL100-24-1
1	PASS
3	PASS
10	PASS

6. Power Frequency Magnetic Field Immunity Test (IEC61000-4-8)

MODEL : DRL100-1

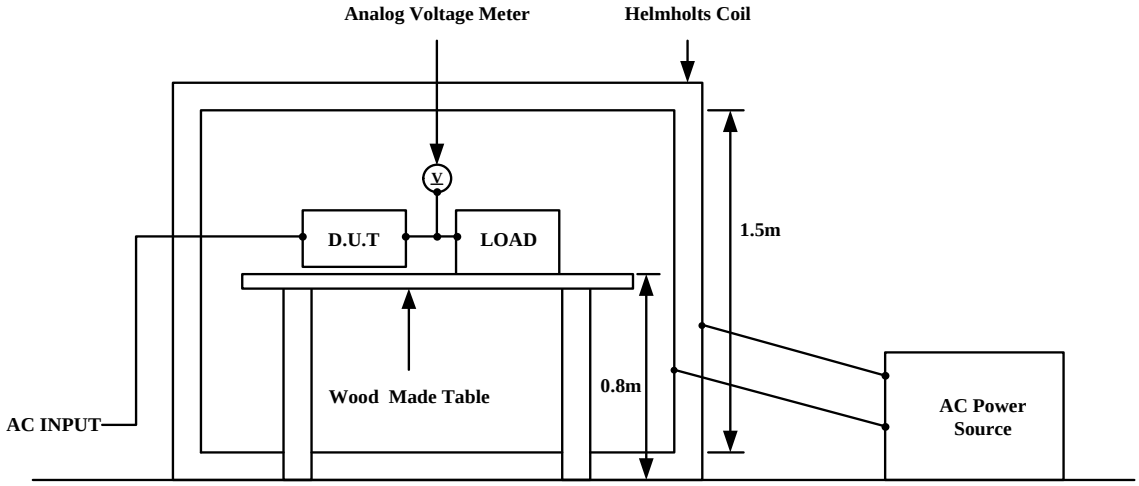
(1) Equipment Used

AC Power Source : 1501L (California Instrument)
Helmholts Coil : HHS5215 (Spulen)

(2) Test Conditions

Input Voltage	: 115, 230VAC	Output Voltage	: Rated
Output Current	: 100%	Magnetic Frequency	: 50Hz
Ambient Temperature	: 25℃	Direction	: X, Y, Z
Test Time	: More than 10 seconds(Each direction)		

(3) Test Method and Device Test Point



(4) 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, without the occurrence of smoke and fire, as well as no output failure.

(5) Test Result (Level 4)

Magnetic Field Strength (A/m)	DRL100-24-1
1	PASS
3	PASS
10	PASS
30	PASS

7. Voltage Dips, Short Interruptions Immunity Test (IEC61000-4-11)

MODEL : DRL100-1

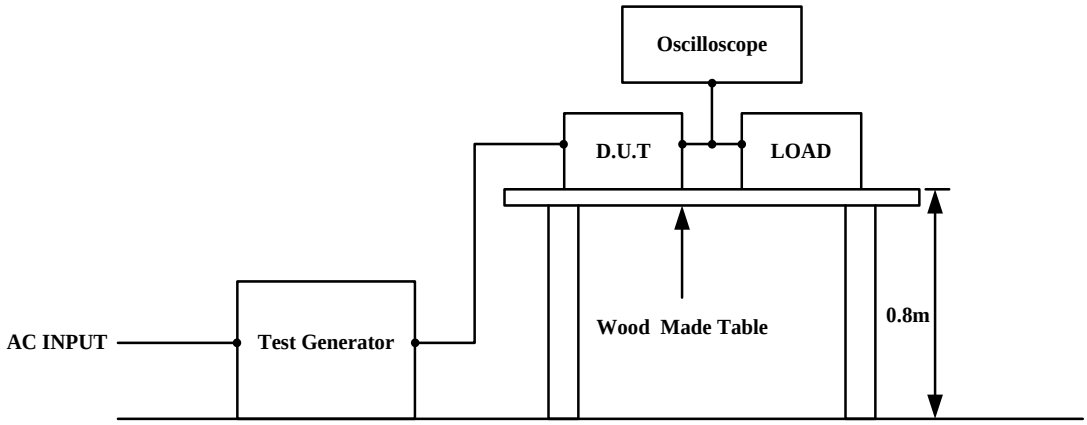
(1) Equipment Used

Test Generator :PCR2000L（KIKUSUI）

(2) Test Conditions

Input Voltage	:115, 230VAC	Output Voltage	:Rated
Output Current	:100%	Ambient Temperature	:25℃
Number of Tests	:3 times	Test interval	:More than 10 seconds

(3) Test Method and Device Test Point



(4) Acceptable Conditions

1. Output voltage to be within output voltage regulation specification after the test.
2. Smoke and fire do not occur.

(5) Test Result (Class 3)

Test Level	Dip rate	Continue Time	DRL100-24-1
80%	20%	5000ms	PASS
70%	30%	500ms	PASS
40%	60%	200ms	PASS
0%	100%	20ms	PASS
0%	100%	5000ms	PASS