

# MODEL 9355-1 PULSE GENERATOR

for MIL-STD461D/E CS115 susceptibility test



## APPLICATION

**Solar Model 9355-1 Pulse Generator** is designed to provide impulse excitation by means of an injection probe placed around interconnecting cables or power wires. The unit uses a charged transmission line (50 ohms) to generate a pulse with less than 2 nanoseconds rise and fall time, and duration of approximately 30 nS, calibrated in a 50 ohm fixture to deliver up to 5 amperes at a rate of 30 p.p.s. for one minute as required by MIL-STD-461D/E, test method CS115.

## DESCRIPTION

The charged line potential of the **Model 9355-1** is adjustable from less than 2 volts to greater than 2000 volts. The repetition rate is variable from less than 0.6 p.p.s. to greater than 150 p.p.s., or single pulses manually triggered by a panel mounted push button. Digital displays monitor the charging voltage and pulse repetition rate.

This unit can also be used as an impulse calibrator to provide an adjustable spectral output up to 150 dB  $\mu\text{V}/\text{MHz}$  over the frequency range of 1 KHz to 10 MHz constant within  $\pm 1$  dB.

## SPECIFICATIONS

### OUTPUT PULSE:

**Charging Voltage:** Adj. from 0 to 2000 volts  
**Rise/Fall Time:** <2 nanoseconds  
**Duration Time:** 35 nanoseconds  
**Pulse Repetition Rate:** 0.6 p.p.s. to 150 p.p.s.  
**Polarity:**  $\pm$  selectable  
**Output Load:** 50  $\pm j$  0 ohms

### SPECTRAL OUTPUT:

**Frequency Range:** 1 KHz to 10 MHz  
**Output Level into 50 $\Omega$ :** Up to 150 dB  $\mu\text{V}/\text{MHz}$   
**Output Flatness:**  $\pm 1$  dB

## FEATURES

- Panel-mounted digital meters monitor the adjustable charged line voltage and pulse repetition rate.
- Adjustable pulse rate from 0.6 p.p.s. to 150 p.p.s., and manual triggering via front panel push button.
- Charged line output voltage adjustable from 1.0 V to >2000 V.
- Pulse generator with spectral output calibrated in terms of dB  $\mu\text{V}/\text{MHz}$  into a 50 ohm load.

## ACCESSORIES RECOMMENDED FOR CS115 TESTING

**Type 9233-50-TS-50-N Line Impedance Stabilization Network.**

**Type 9125-1 Calibration Fixture** used to calibrate probes with a window size from 1.25" to 1.50" and a frequency range of 20 Hz to 500 MHz.

**Type 9142-1N Current Injection Probe** with a frequency range of 2 MHz to 450 MHz, 200 W.

**Type 9123-1 Current Monitor Probe** with a frequency range of 10 KHz to 500 MHz, 1.25" window.

**Type 9410-1 High Voltage 40 dB Attenuator**, dc to 1 GHz, 40 dB insertion loss,  $\pm 2$  dB. Can also be used as a high voltage, 50 ohm coaxial load.

**Type 9841-1 1000 Volt Termination**, 50 ohm coaxial 1 W average power. Typical input VSWR in a 50 ohm system under 1.5 from DC to 1 GHz.



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e-mail: [sales@solar-emc.com](mailto:sales@solar-emc.com)

[www.solar-emc.com](http://www.solar-emc.com)

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(800) 952-5302

(818) 755-1700

FAX (818) 755-0078