Adjustable Current Pulse Generator

BNC

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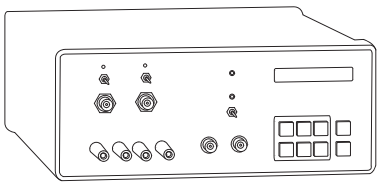
BNC model 507



A FIRESET FOR INITIATORS AND PYROTECHNICS

- Easy no-fire and all-fire testing
- Facilitates Bruceton and Neyer testing
- Firing of multiple devices
- Synchronize firing pulses to each other
- Analog current monitor with each channel

CORNES Technologies コーンズテクノロジー株式会社

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MODEL 507

507 CURRENT PULSE GENERATOR

The Model 507 is a current source pulse generator which provides current levels to a load that are independent of the value of the load resistance. The majority of pulse generators are voltage sources and their currents change when load resistance changes.

In addition to load resistance independence, Model 507 pulses can have current levels, pulse widths and pulse delays that are unique to each channel. You can precisely control the width and amplitude of the pulse and the time between pulses. Widths are variable between 0.1 to 100 msec, and levels are controlled up to 25 amps. The 507 provides a TTL Sync Out that coincides with zero delay to use as a reference and trigger. Each channel has its own monitor to observe the current through it's load and measure it's function time. Airbag squib, initiator, fuse, detonator, explosive and pyrotechnic applications will benefit from the constant current and constant width, hence constant energy pulse of the Model 507.

SPECIFICATIONS

DELAYS

CHANNELS: 2 / 4 / 8 independent outputs, with digitally controlled current delay and pulse width

DELAY: 0 to 99.9999998 sec

PULSEWIDTH: 0.1 ms to 100 ms

RESOLUTION: 200 ns

ACCURACY: 100 ns + .0001 x delay

TIMEBASE: 5 MHz, 25 PPM crystal oscillator

RMS JITTER: 100 ns max

TRIG DELAY: Ext Trig to T_o < 10 us

EXTERNAL TRIG/DELAYS

RATE: Dc to 1/(75us + largest delay and width combination)

THRESHOLD: 3 V

TRIGGER SLOPE: Rising or falling time

IMPEDANCE: 1000 ohms

COMPUTER INTERFACE

RS232: 9600 Baud. All instrument functions and settings may be controlled over the interface bus.

RS232: Standard • **IEEE 488:** Optional • **GPIB:** Optional

OUTPUTS

SLEW RATE: > 2.5A/us

OVERSHOOT: < 150mA

AMPLITUDE: 25A with 50 ma resolution

BANK CAPACITANCE: 24000 μF

PEAK CURRENT: 25A per channel

AVERAGE CURRENT LIMIT: 100 mA (each channel)

MAXIMUM VOLTAGE: 45 V

CURRENT MONITOR: Analog signal with 3MHz bandwidth

INTERNAL RATE GENERATOR

MODES: Single shot, external trigger

RMS JITTER: 100 ns

GENERAL

STORAGE: Twelve complete configurations may be stored and recalled from the front panel or the computer interface.

DIMENSIONS: 7.5" x 9.0" x 4.0"

WEIGHT: 10 lbs.

POWER: 20 watts @ 120 or 220V AC

WARRANTY: 1 year parts, labor, materials and workmanship

FEATURES OF THE 507

- Peak Outputs to 25 Amps
- 2 / 4 / 8 Channel Models
- Independent, Digitally Controlled Outputs
- Compliance Voltage to 45 V
- Selectable Delay and Pulsewidth
- Quick Recall of up to 12 System Configurations
- RS232 Computer Interface
- On-Screen Menus and Help
- Single Shot and External Trigger Modes
- TTL Sync Signal Output
- Current Monitor for Each Channel

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