Founded in 1984, Highland Technology designs and manufactures innovative precision instrumentation for demanding aerospace and defense, scientific, and industrial applications.

Competencies include:

● Precision analog measurement and control

● Digital delay and pulse generation

● Picosecond-resolution timing instrumentation

● High channel-count synchronized arbitrary waveform generation

● Precision thermocouple and RTD temperature measurement /simulation

● LVDT, tachometer, and load cell data acquisition

● Fiber optic logic links and timing distribution

● VME, embedded, benchtop and custom/ OEM form factors

● Application-specific electronics including:

  ◗ Controllers and components for advanced spectroscopy

  ◗ Aircraft engine and power systems simulators

  ◗ Mixed-function controllers for lasers, ICCD high-speed cameras, and radar

  ◗ Picosecond and fiber optic devices

Highland emphasizes thorough understanding of customer applications, direct technical support, and long-term availability.

HIGHLAND TECHNOLOGY

A range of multi-channel waveform generators is available as VME modules and compact embedded units with RS-232 and Ethernet connectivity.

▶ 4 to hundreds of synchronized channels
▶ 300 KHz to 1 GHz
▶ Programmable complex sequences for simulation

V346 VME 8-Channel 32 MHz ARB

▶ Output range 0 to 32 MHz with 0.015 Hz resolution
▶ 8 channels of independently programmable sine, sawtooth, triangle, and square/PWM/pulse, Gaussian noise, and arbitrary waveform generation
▶ Channel-channel modulation: AM, FM, PM, PWM, and channel summing

Includes built-in self-test (BIST) and channel test connector. PWM facility generates precision digital outputs for motion control or optical encoder simulation.

Other VME models:

V340 8-channel programmable sine wave/pulse generator
V350 4 analog + 4 digital channel function generator
V375 4 channel programmable arbitrary waveform generator– adds user waveform input, burst mode, 300KHz bandwidth

T340 Compact 4-Channel Waveform Generator

▶ Output range 0 to 2 MHz with millihertz resolution
▶ 4 channels of independently programmable sine, sawtooth, triangle, and square/PWM waveform generation
▶ Channels can be synchronized to produce coordinated polyphase or time-sync'd PWM signals at same or ratioed frequencies
▶ Includes built-in self-test (BIST)
▶ RS-232 or Ethernet connectivity

Other compact arbs:
T344/346 0-32 MHz arbitrary waveform generators
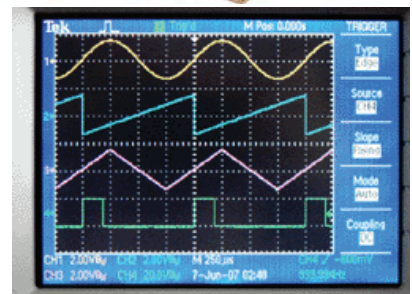
HIGHLAND TECHNOLOGY

A range of digital delay and pulse generators are available as VME/VXI modules, bench top or rack mount instruments, and compact embedded units with RS-232 and Ethernet connectivity.

Some unique specifications include:

◗ Up to 4 channels of digital delay and pulse generation
◗ 1 picosecond resolution
◗ 25 picosecond RMS jitter, trigger to channel
◗ 25 nanosecond insertion delay

P400 Benchtop Digital Delay Generator

◗ 4 channel digital delay and pulse generator with 1 picosecond programmable delays and widths
◗ 25 nanosecond insertion delay
◗ 25 picosecond RMS jitter trigger to channel
◗ 10 MHz rep rate
◗ Adjustable output levels
◗ Five trigger sources with external gating

T564 4-Channel Compact Digital Delay Generators

◗ 4 TTL-level delay outputs, individually programmable for delay and pulse width range up to 10 s with 10 ps resolution
◗ Low 20 nanosecond insertion delay
◗ DSP phaselock system maintains crystal-clock accuracy and jitter for any delay length; parts per trillion drift using external 10 MHz reference
◗ DDS synthesizer for internal trigger rates to 16 MHz
◗ Programmable-level trigger input with divide/burst features and trigger GATE input

Other models:
T560 Digital Delay Generator
T250 Fast Impulse Response Generator
J240 Pulse Generator

VME/VXI Digital Delay & Pulse Generators

V880 precision programmable delay generator for timing systems; 1 picosecond resolution, 3 picosecond RMS jitter, electrical or optical outputs
V851/V951 8-channel digital delay and pulse generators

HIGHLAND TECHNOLOGY

V470 VME Analog Output and Thermocouple Simulator

◗ 16 independent, isolated analog output channels
◗ Voltage mode: provides 16-bit resolution with programmable output voltage ranges
◗ T/C simulation mode: simulates most common thermocouples: types J K E T R S B
◗ Includes four precision RTD signal conditioners for reference junction temperature sensing

Other VME models:

V180 AC Power Measurement module
V220 Current Loop I/O module
V365 Tachometer module for engine measurements
V385 Strain Gage and Load Cell module
V420 Resistance/RTD Simulation module
V450 Analog Input and Thermocouple module
V490 Multi-Range Digitizer
V550 LVDT/RVDT Position Sensor module

Photonics and Fiber Optics

J720/J724 Electrical to fiber optic converters
J730/J740 Fiber optic to electrical converters
J750 GHz wideband amplifier
P730 Electrical/optical fanout
T760 Fast 100-Volt optical to electrical converter
T860 Fast pulse amplifier/laser driver

For more information, please call or email info@highlandtechnology.com