

Model 588



1U Rack Mount 8 Channel DDG



Features

- Low Profile Design
- 8 Channels of Delay and Width
- 200pS Jitter, 250pS Resolution
- NI Certified Labview Drivers Included
- Dual Trigger Option

Key Specifications

- 50pS internal jitter, 200pS trigger jitter
- 250pS Delay & Width resolution
- USB and Ethernet Interfaces
- Custom Modes (Burst, Divide-by-N, etc)
- Multiplex up to 8 channels
- Trigger Inputs (Single or Dual)

Applications

- Automated Test Environments
- OEM System Components
- Remote Experimentation
- Ballistics, Downrange Test
- Synchronize Multiple Devices/Events

With the Model 588, we have packaged the precision pulse and digital delay timing designs in a convenient package for embedded and OEM applications. The new Model 588 1U DDG gives users 8 channels of precision timing in a package designed for remote applications and large system gating/synchronizing.

Our precision clock and many channel features compliment the low-profile packaging to give system integrators a refined rack-mount alternative to multiple boxes and cables cobbled together around a test setup. When it comes to custom timing requirements, our applications team is available to address your most demanding needs.

Specifications

MODULE SPECIFICATIONS



TTL/ADJUSTABLE CHANNEL OUTPUTS

Output Impedance	50ohm
------------------	-------

TTL/CMOS MODE

Output Level	4.0v typ into 1 kohm
Rise time	3ns typ
Slew rate	0.5 V/ns
Jitter	50ps RMS

ADJUSTABLE MODE

Output Level	2.0 to 20 VDC into 1 kohm 1.0 to 10 VDC into 50 ohms
Output Resolution	10mV
Current	200mA typical, 400 mA max (short pulses)
Slew Rate	0.1V/ns
Overshoot	<100mV + 10% of pulse amplitude

TRIGGER/GATE DUAL INPUT MODULE (STANDARD)

Standard dual channel input module, providing one trigger input and one gate input. May be used with the dual trigger firmware option to provide two independent trigger sources.

Threshold	0.2 to 15 VDC
Maximum Input Voltage	60V Peak
Resolution	10mV
Input Impedance	1Mohm + 40pF or 50ohm
Insertion Delay	< 100 ns
Jitter	800ps RMS

SYSTEM EXTERNAL TRIGGER / GATE INPUT(S)

Trigger Input

Function	Generate individual pulses, start a burst or continuous stream.
Rate	DC to 1/(200ns + longest active pulse)
Slope	Rising or Falling
Behavior	Used to control the Internal Rate Generator

Gate Input

Function	Pulse Inhibit or Output Inhibit
Polarity	Active High / Active Low
Behavior	Used to control the Internal Rate Generator or any of the channels

STANDARD FEATURES/FUNCTIONS

Communications	USB/RS232/Ethernet
External Clock In	10 MHz - 100 MHz User selectable in discrete values
External Clock Out	10 MHz - 100 MHz User selectable in discrete values
Configuration Storage	12 Configurations. Automatically saves current configuration on front panel

PROGRAMMABLE TIMING GENERATOR

Output Modes	Single Shot, Burst, Duty Cycle, Continuous
Control Modes	Internally Triggered, Externally Triggered and External Gate Each channel may be independently set to any of the modes
Output Multiplexer	Any/all channels may be multiplexed to any/all outputs
Delayed Output	0 to 9,999,999 pulses
Timebase	Same as Internal Rate Generator
Delays	
Range	0 - 5000s
Accuracy	1ns + .0001 x Delay
Resolution	250ps
Pulse Inhibit Delay	150ns
Output Inhibit Delay	150ns

System Options

I	Incrementing (provides automatic high speed incrementing/decrementing of delay and/or pulsewidth for each channel)
DT15	Dual Trigger Logic - provides additional trigger via gate input

* Other custom modules (led drivers, higher voltages, current sources) available. Call with your request.

System Specifications

Models/Outputs - 4 independent output channels
- 8 independent output channels

Inputs 2 inputs - 1 trig input / 1 gate input

INTERNAL RATE GENERATOR

Rate 0.0002 Hz to 20.000 MHz

Resolution 10ns

Accuracy Same as time base

Jitter 50ps RMS

Settling 1 period

Burst Mode 1 to 9,999,999 pulses

Timebase 100 MHz, low jitter PLL

Oscillator 50 MHz, 25ppm

Output Modes Single Pulse, Burst, Duty Cycle,
Continuous

Control Modes Internal Rate Generator, External Trigger,
External Gate

PROGRAMMABLE TIMING GENERATOR

Output Modes Single Shot, Burst, Duty Cycle,
Continuous

Control Modes Internally Triggered, Externally Triggered
and External Gate
Each channel may be independently set
to any of the modes

Output Multiplexer Any/all channels may be multiplexed to
any/all outputs

Delayed Output 0 to 9,999,999 pulses

Timebase Same as Internal Rate Generator

Delays

Range 0 - 5000s

Accuracy 1ns + .0001 x Delay

Resolution 250ps

Pulse Inhibit Delay 150ns

Output Inhibit Delay 150ns