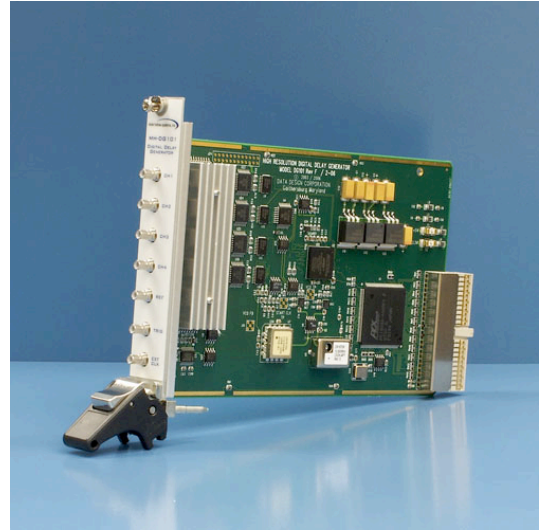


- 1ns delay resolution.
- Cycle to cycle jitter less than 250ps.
- Programmable output amplitude of 0 to 5 Volts.
- Programmable trigger level of 0 to 5 Volts.
- External clock synchronizing option at 10 MHz.
- Modular design for turnkey integration of high channel count systems.
- Turnkey control panel software for Windows.



## Overview

The MH-DG101 Digital Delay Generator is a CompactPCI (cPCI) module designed to furnish four precisely timed outputs when triggered by an external input. Each output delay and terminal pulse width is independently programmable. Delays up to 167ms may be programmed with 1ns resolution, while extremely low jitter operation makes each cycle precisely repeatable. An auto-triggering feature makes the MH-DG101 operable as a precision pulse generator. Outputs are provided by high power pin driver devices with programmable amplitude and include a reference output for applications, which must compensate for insertion delay. The trigger input threshold may also be programmed and the external clock input may be used to synchronize multiple modules. The MH-DG101 and included drivers for Real Time, Windows XP, and Windows 7 (64-bit) provide a turnkey digital sequencing solution. Applications include laser timing, camera systems, automatic test, and radar/lidar signaling.

## Specifications

### Dataway Interface

cPCI at 32 Bits and 33 MHz  
 Compliant with PICMG 2.0 R3.0  
 Single Width 3U CompactPCI Card

### Resolution

Delays: 1ns  
 Width: 10ns

### Outputs

4 Channels, 0 to 5V amplitude  
 1 Reference Channel, 5V amplitude  
 Sourced from 50 Ω

### External Trigger Input

Single Ended DC Coupled Positive Edge  
 Programmable from 0V to 5V, 470 Ω 10 pF

### Ambient Temperature Range

0 to 70 C

### Jitter

< 250ps RMS cycle-to-cycle  
 Measured from Trigger to Output

### External Clock Input

10 MHz Reference  
 1 KΩ 20 pF