

**PDG-3900**

Digital Delay / Pulse Generator

**Features:**

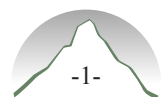
- 1ps delay adjustability
- Exceptionally low jitter
- 100MHz repetition rate
- Intuitive touch screen control
- GPIB, ethernet, RS-232 included
- Four independently variable channels
- Real time adjustability while enabled

The PDG-3900 is an industry leading four channel pulse generator with 100MHz pulse repetition rates and extremely low jitter. The PDG-3900 can generate frequencies with a resolution of 5 μ Hz. Programming the instrument is extremely simple using the intuitive 3.5" color LCD. Ethernet, GPIB, and RS-232 interfaces all come standard on the PDG-3900.

For sales information or technical questions contact your local IXYS representative or IXYS Colorado directly at:

Sales: **970.493.1901** or sales@ixyscolorado.com

Technical Support: techsupport@ixyscolorado.com



Specifications

Delay	
Channels	4 independent + 1 T0
Range	0-2000 s
Resolution	1 ps
Timebase Accuracy	1 ns + (timebase error x delay)
RMS Jitter	
Ext. trig. To any output	<10 ps + (timebase jitter x delay)
T0 to any output	<2 ps + (timebase jitter x delay)
Trigger Delay (ext. trig. to output)	92.5 ns ¹

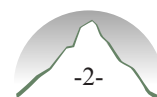
Timebases	
Std.	
Type	Crystal
Jitter	10 ns / s
Stability	2 x 10 ⁻⁶
Aging	(ppm / yr) 3
External Input	10 MHz +/-10ppm, sine > 0.5 Vpp, 1kΩ
Output	10 MHz, 2Vpp sine into 50Ω

SYSTEM EXTERNAL TRIGGER INPUT(S)	
Rate	DC to 1 / (10 ns + longest delay), max 30 MHz
Threshold Adjustable from	0.2 to 4.8 V ²
Max Input Voltage	5 VDC
Slope	Rising or falling edge
Impedance	1 M or 50 selectable

For sales information or technical questions contact your local IXYS representative or IXYS Colorado directly at:

Sales: **970.493.1901** or sales@ixyscolorado.com

Technical Support: techsupport@ixyscolorado.com



INTERNAL RATE GENERATOR	
Rate	100 μ Hz to 100 MHz
Resolution	5 μ Hz
Accuracy	Same as timebase
Jitter	< 2 ps (100 MHz / N trigger rate)

ADJUSTABLE OUTPUTS	
Source Impedance	50 Ω
Pulse Width Range	1 ns - 2000 s
Rise Time	< 2 ns
Overshoot	< 100 mV + 10% pulse amplitude
Offset	\pm 2V
Amplitude	0.5 to 5.0 V (level + offset < 6.0 V)
Accuracy	100mV + 5% of pulse amplitude

General	
Communications	GPIO, RS-232, Ethernet
Non-volatile memory	5 sets of instrument configurations can be stored
Power	< 200 W, 90 - 264 VAC, 47 - 63 Hz
Dimensions	8.5W x 3.5H x 13D (See web site for solid geometry download)
Weight	< 10 lbs
Warranty	One year parts and labor on defects in materials and workmanship

¹ When using ref clock and aligned trigger pulse

² Threshold is adjustable when in 50 ohm termination mode. When using 1 Meg Ohm termination, threshold is set at 2.5V for use with a 0 to 5 V signal.

For sales information or technical questions contact your local IXYS representative or IXYS Colorado directly at:

Sales: **970.493.1901** or **sales@ixyscolorado.com**

Technical Support: **techsupport@ixyscolorado.com**

