



Planar Monolithics Industries, Inc.

RF & Microwave Components and Modules to 40GHz

ISO9001:2008 Certified

May 21, 2014

2.0 to 18.0GHz I/Q Vector Modulator with 16dB Attenuation & 360 Degrees Phase Control PMI Model No. PIQ-2G18G-360-16-CD-1

PMI Model No. PIQ-2G18G-360-16-CD-1 is a 2.0 to 18.0GHz, High Performance I/Q Vector Modulator with 2 x 12 bit monotonic TTL compatible channels (I and Q). This model offers a full 360 degrees of phase shift with a minimum of 16dB of amplitude control. The maximum switching speed is 500nsec and the unit operates on either +/-12VDC or +/-15VDC. The housing measures 4.25" x 3.5" x 1.0"



Frequency Range	2.0 to 18.0GHz
Dynamic Range	16dB & 360 degrees
RF Input Power	+10dBm CW, 1.0 Watt max
Insertion Loss	16.0dB max
VSWR	2.2:1 max (50 OHM System)
Attenuation vs Frequency	±3.5dB typ
Phase vs Frequency	±20.0 degrees typ
Control Logic	2x12 BITs (I & Q), TTL Compatible
Control Slopes	Linear
Switching Speed	500 nSec max
Temperature Coefficient	±0.035 dB/°C & ±0.17 Deg/°C
Power Supply	±12V to ±15V @ 100mA max
RF Connectors	SMA Female Input and Output
Power/ Logic Connectors	DC-37P, Sub Miniature D Multi-Pin
Size	4.25" x 3.5" x 1.0"

Temperature:	-10°C to +60 °C Operating -65°C to +125 °C Non-Operating
Humidity:	MIL-STD-202G, Method 103B Cond B
Shock	MIL-STD-202G, Method 213B Cond B
Vibration:	MIL-STD-202G, Method 204D Cond B
Altitude:	MIL-STD-202G, Method 105C Cond B
Temperature Cycle	MIL-STD-202G, Method 107D Cond A

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F Grove Road, Frederick,
Maryland 21704 USA |

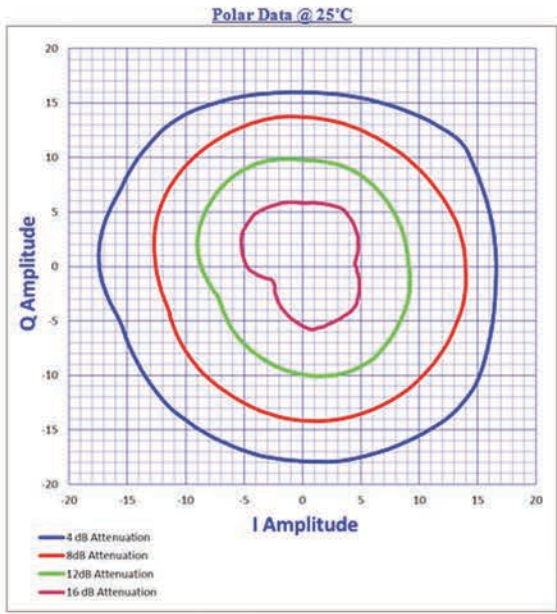
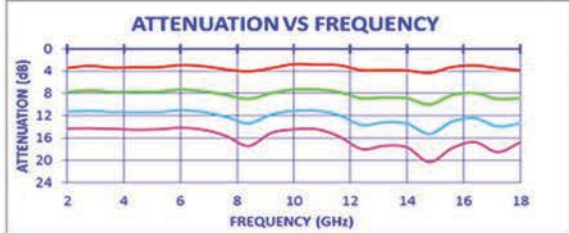
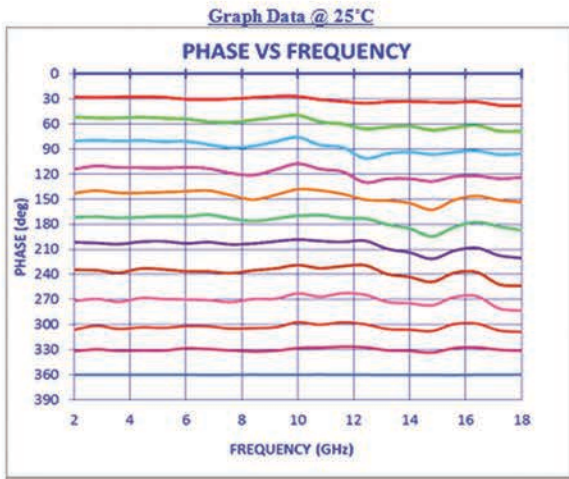
Tel: 301-662-5019 | Fax: 301-662-1731

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Suite 1 El Dorado Hills, CA 95762 USA

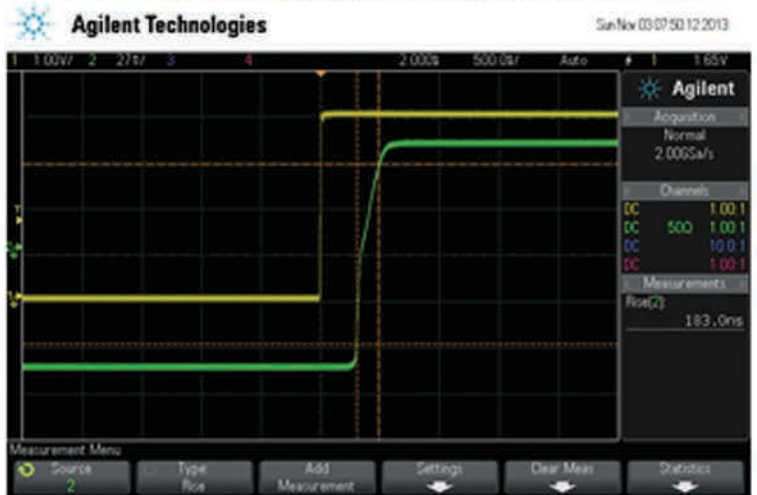
Tel: 916-542-1401 | Fax: 916-265-2597

Email: sales@pmi-rf.com | www.pmi-rf.com

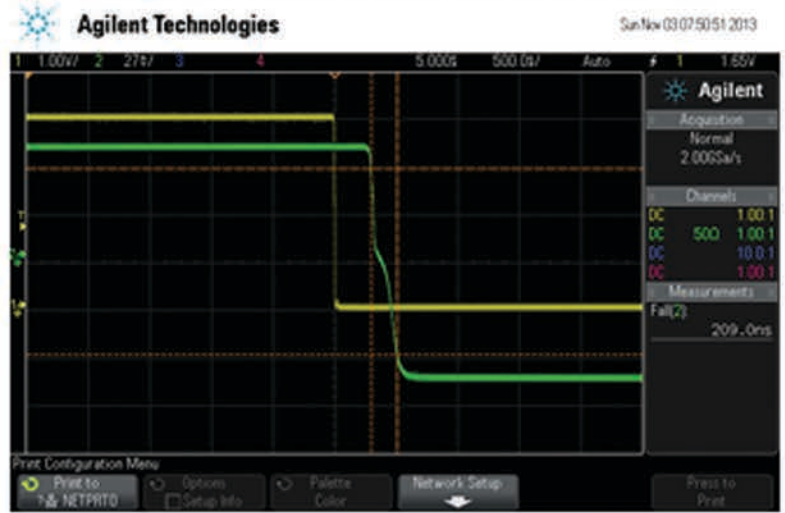
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Rise Time, Delay On (Switching Speed) @ 25°C

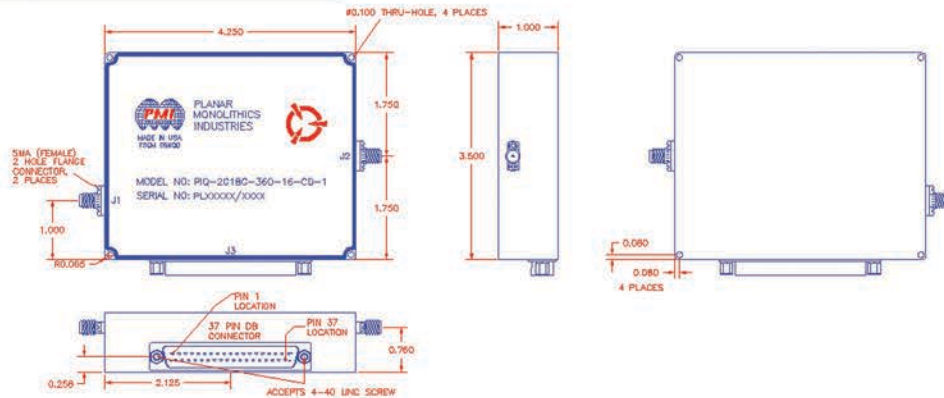


Fall Time, Delay Off (Switching Speed) @ 25°C



Yellow Trace(1):
Green Trace(2):

Input Signal
Phase Response
(Measured with a Mixer)



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