



# Planar Monolithics Industries, Inc.

## 0.5 to 18.0 GHz High Performance Digital I/Q Vector Modulators with 360° Phase Shift & Amplitude Control

**Model: PIQ-0R5G2G-360-20-CD-1 (0.5 to 2 GHz)**

<https://www.pmi-rf.com/product-details/piq-0r5g2g-360-20-cd-1>



**RF Connectors:**

**SMA (F)**

**Switching Speed:**

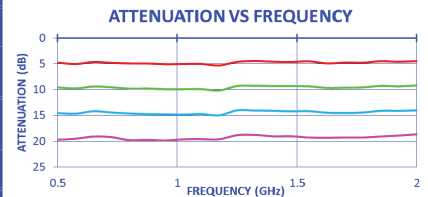
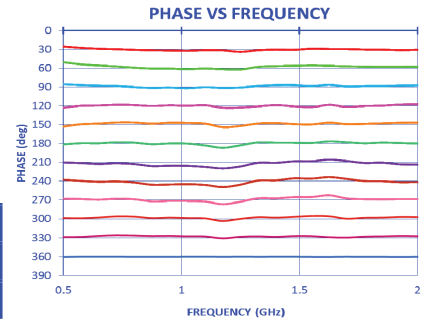
**500 ns Max**

**DC Voltage:**

**+15 VDC @ 87 mA**

**-15 VDC @ 24 mA**

Frequency	0.5 to 2.0 GHz
Dynamic Range	20 dB & 360°
RF Input Power	+5 dBm CW, 1.0 Watt Max
Insertion Loss	11.0 dB Max - <b>Measured 10.54 dB</b>
VSWR	2.2:1 Max - <b>Measured 1.59:1</b>
Attenuation vs Frequency	±1.5 dB Typ - <b>Measured ±1.3 dB</b>
Phase vs Frequency	±10.0° Typ - <b>Measured ±3.5°</b>
Digital Control	2 x 12 Bit Monotonic TTL
Temperature	-10 °C to +60 °C Operating



**Model: PIQ-2G18G-360-16-CD-1 (2 to 18 GHz)**

<https://www.pmi-rf.com/product-details/piq-2g18g-360-16-cd-1>



**RF Connectors:**

**SMA (F)**

**Switching Speed:**

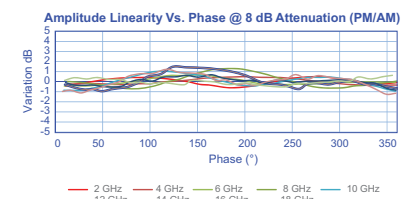
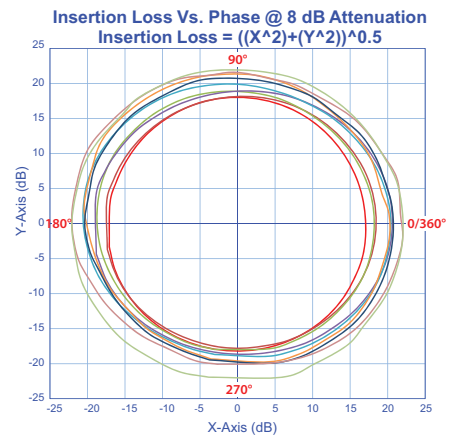
**500 ns Max**

**DC Voltage:**

**+15 VDC @ 65 mA**

**-15 VDC @ 76 mA**

Frequency	2.0 to 18.0 GHz
Dynamic Range	16 dB & 360°
RF Input Power	+10 dBm CW, 1.0 Watt Max
Insertion Loss	18.0 dB Max - <b>Measured 14.74 dB</b>
VSWR	2.2:1 Max - <b>Measured 1.86:1</b>
Attenuation vs Frequency	±3.5 dB Typ <b>Measured</b> ±1.19 dB @ 0 dB Attenuation ±1.41 dB @ 8 dB Attenuation ±2.91 dB @ 16 dB Attenuation
Phase vs Frequency	±20.0° Typ <b>Measured</b> ±9.66° @ 0 dB Attenuation ±12.35° @ 8 dB Attenuation ±18.23° @ 16 dB Attenuation
Digital Control	2 x 12 Bit Monotonic TTL
Temperature	-10 °C to +60 °C Operating



- Amplifiers - Solid State
- Attenuators - Variable/Programmable
- Bi-Phase Modulators
- Couplers (Quadrature, 180, Directional)
- Detectors - RF / Microwave
- DLVAs, ERDLVAs & SDL-VAs
- Filters & Switched Filter Banks
- Form, Fit, Functional Products & Services
- Frequency Converters
- Frequency Sources
- Frequency Discriminators & IFM
- Frequency Synthesizers
- Gain & Loss Equalizers
- Integrated MIC/MMIC Assemblies (IMAs)
- IQ Vector Modulators
- Limiters - RF / Microwave
- Log Amps
- Miscellaneous Products
- Monopulse Comparators
- Multifunction Integrated Assemblies (IMAs)
- Phase Shifters & Bi-Phase Modulators
- Power Dividers/Combiners (Passive & Active)
- Pulse Modulators - SP1T
- Rack & Chassis Mount Products
- Receiver Front Ends & Transceivers
- Single Side Band Modulators
- SMT & QFN Products
- Switch Matrices
- Switch Filter Banks
- Switches - Solid-State
- Systems - Radar Sense & Avoid
- Systems - Fly Eye Radar
- Threshold Detectors
- USB Products



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