

DESCRIPTION

PMI MODEL: PIQ-18G40G-360D-10dB IS A 18 TO 40 GHz HIGH PERFORMANCE IQ VECTOR MODULATOR WITH 2 X 12 BIT TTL COMPATIBLE CHANNELS (I AND Q). THIS MODEL OFFERS A FULL 360 DEGREES OF PHASE SHIFT WITH A MINIMUM OF 10 dB AMPLITUDE CONTROL AT AN INPUT POWER -10 dBm.

SPECIFICATIONS

- FREQUENCY RANGE: ----- 18 TO 40 GHz
- DYNAMIC RANGE: ----- 10 dB & 360°
- RF INPUT POWER: ----- OPTIMIZED FOR -10dBm & 25°C
- INSERTION LOSS: ----- 20.0 dB TYP
- VSWR: ----- 3.5:1 MAX (50 OHM SYSTEM)
- ATTENUATION VS FREQUENCY: ----- ±5.0 dB TYP @ -10 dBm
- PHASE VS FREQUENCY: ----- ±40.0° TYP @ -10 dBm
- CONTROL LOGIC: ----- 2X12 BITS (I&Q), TTL COMPATIBLE
- CONTROL SLOPES: ----- LINEAR
- SWITCHING SPEED: ----- 500 ns MAX
- POWER SUPPLY: ----- ± 12V TO ±15V @ ±100mA MAX
- RF CONNECTORS: ----- SMA FEMALE INPUT AND OUTPUT
- POWER/LOGIC CONNECTIONS: ----- 37 PIN D-SUB CONNECTOR PLUG
- SIZE**: ----- 3.5" X 2.50" X 0.75"
- FINISH: ----- PAINTED BLUE

ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -10 °C TO +60 °C (OPERATING)
-65 °C TO +125 °C (STORAGE)
- HUMIDITY: ----- MIL-STD-202F, METHOD 103B COND. B
- SHOCK: ----- MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: ----- MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: ----- MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: ----- MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

PMI CONFIDENTIAL AND PROPRIETARY

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	PRELIMINARY	8/11/21	

37-PIN CONNECTOR PIN-OUT

PIN	FUNCTION	PIN	FUNCTION
1	I-5	20	I-4
2	I-6	21	I-7
3	I-8	22	I-3
4	I-9	23	I-2
5	I-10	24	I-1
6	I-11	25	I-12 (LSB)
7	NC	26	NC
8	+12V TO +15V	27	NC
9	GND	28	GND
10	GND	29	NC
11	-12V TO -15V	30	NC
12	Q-3	31	NC
13	Q-2	32	Q-4
14	Q-1 (LSB)	33	NC
15	Q-5	34	NC
16	Q-6	35	Q-12
17	Q-7	36	Q-11
18	Q-8	37	Q-10
19	Q-9		

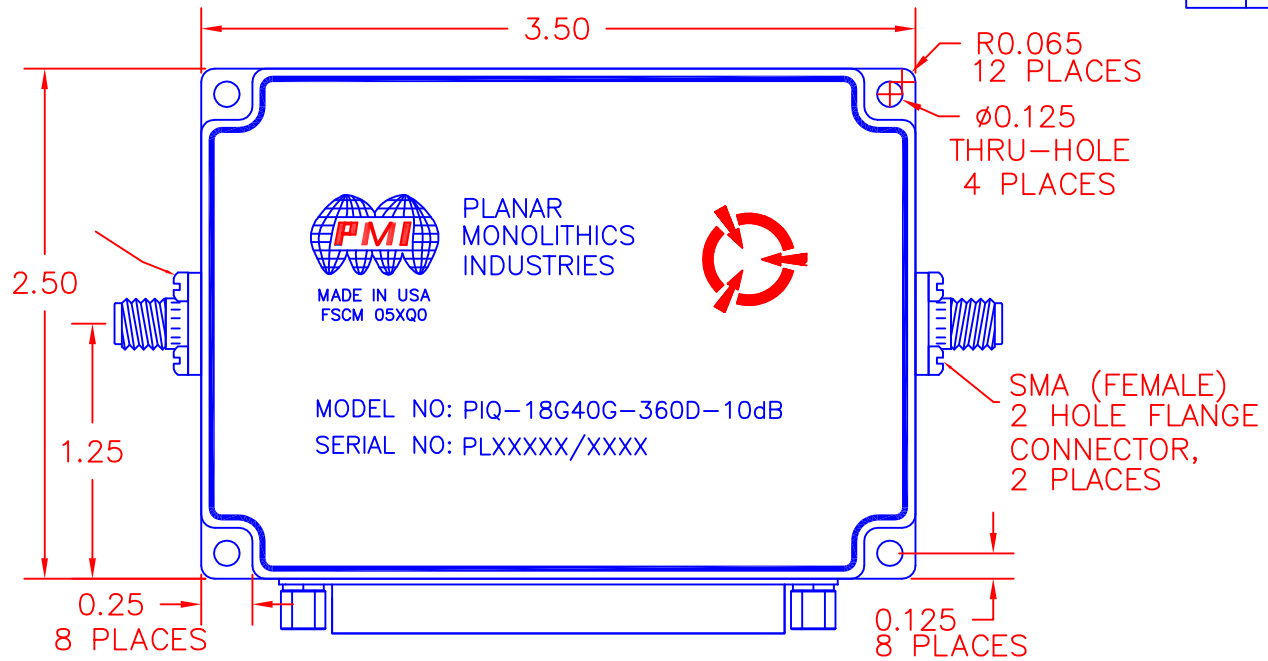
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ISO 9001 CERTIFIED



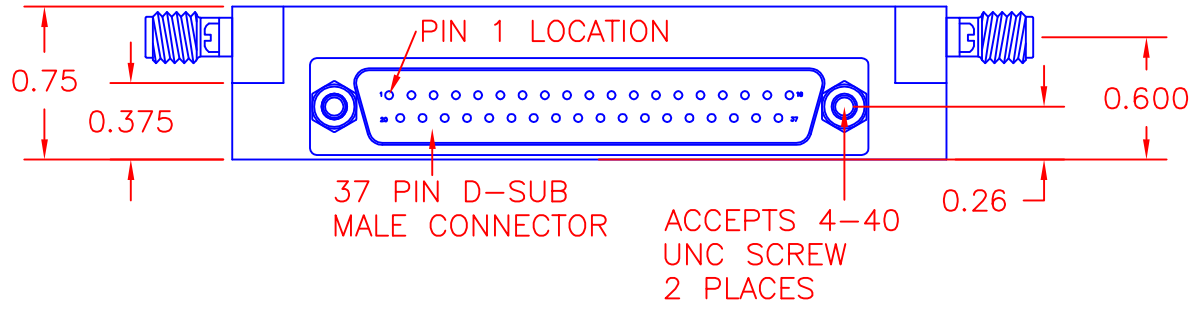
APPROVALS		DATE	TITLE		
DRAWN <i>JPH</i>		8/11/21	PRODUCT FEATURE PIQ-18G40G-360D-10dB		
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 270XXXXX
ISSUED			SCALE N:S	SHEET 1 OF 2	REV. 1

MECHANICAL OUTLINE

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	PRELIMINARY	8/11/21	



*****SIZE IS PRELIMINARY AND WILL CHANGE IF REQUIRED UPON COMPLETION OF DEVELOPMENT**



ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

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DRAWN <i>JPH</i>		8/11/21	PRODUCT FEATURE PIQ-18G40G-360D-10dB		
CHECKED			SIZE A	FSCM NO. 05XQ0	DWG NO. 270XXXXX
ISSUED			SCALE N:S	SHEET 2 OF 2	REV. 1