## **DESCRIPTION:**

PMI MODEL NUMBER BPM-1840-180-292FF IS A BI-PHASE MODULATOR OPERATING OVER THE 18 TO 40 GHz FREQUENCY RANGE. THIS MODEL OFFERS INSERTION LOSS OF 8 dB TYPICAL WHILE MAINTAINING A MAXIMUM AMPLITUDE BALANCE OF ±4.0 dB. THIS COMPACT HOUSING MEASURES 1.0" x 1.0" x 0.5" AND IS OUTFITTED WITH 2.92 mm FEMALE CONNECTORS.

### DESCRIPTION DATE APPROVED ORIGINAL RELEASE 10/16/2019

## **SPECIFICATIONS:**

• FREQUENCY RANGE:	18 TO 40 GHz
• INSERTION LOSS:	8 dB TYP
• VSWR:	2.0:1 GOAL, 3.0:1 MAX
SWITCHING SPEED:	100 ns MAX
PHASE VARIATION:	±40° TYP
AMPLITUDE BALANCE:	±4.0 dB TYP
PHASE SHIFT CONTROL INPUT:	TTL "0" = 0°
	TTL "1" = 180°
POWER HANDLING:	20 dBm OPERATIONAL
• IMPEDANCE:	50 Ω
DC SUPPLY:	+5 VDC @ 75 mA MAX
	-5 VDC @ 20 mA MAX
CONNECTORS:	2.92 mm FEMALE
• SIZE:	1.0" x 1.0" x 0.5"
• FINISH:	PAINTED BLUE

	[21.7]	2X ∅0.104[2.6	B] THRU	[9.1]	
0.86 [21.7] 0.07 [1.8] \$\psi\$ 0.03 SOLDER PIN-3 PLACES	BI-PHASE MODEL NO: BPM-1840-180-292FF SERIAL NO: PLOCOCO/XXXXX CAGE 05XQ0  -5V GND +5V CTL	0.50 [12.7]	1.00 [25.4]	G SURFACE	
0.28 [7.1]	1.00 [25.4] 0.28 [7.1] 0.50 [12.7] 0.72 [18.3]				

# **ENVIRONMENTAL RATINGS:**

• TEMPERATURE:	55°C TO +85°C (OPERATING)
	-65°C TO +125°C (STORAGE)
• HUMIDITY:	UP TO 90%, NON-CONDENSING
• SHOCK:	
VIBRATION:	MIL-STD-202, METHOD 204D COND. B
• ALTITUDE:	MIL-STD-202, METHOD 105C COND. B
• TEMPERATURE CYC	LE:MIL-STD-202, METHOD 107D COND. A

### PMI CONFIDENTIAL AND PROPRIETARY

				Quantic PMI PLANAR MONOLITHICS 7309-A GROVE ROAD FREDERICK MARYLAND 21704 USA					
		APPROVALS	ALS DATE		TEL: (301) 662-5019, FAX: (301) 662-1731 WEB: WWW.QUANTICPMI.COM, EMAIL: SALES@QUANTICF ISO 9001 CERTIFIED				.COI
		GJR	10/16/2019	TITLE			OUTLINE		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± .XXX± 0.01	J ESCANO	3/6/2025							
	ISSUED		SIZE	FSCI	NO.	DWG NO.		RE	
			В	05X	(Q0	270375	60	Α	
			SCAL	E 2·1			SHEET 1 OI	F 1	

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