## DESCRIPTION

PMI MODEL: DBMX-4G12G-19-8D5-SFF IS A DOUBLE BALANCED MIXER OPERATING OVER THE 4.0 GHz TO 12.0 GHz FREQUENCY RANGE. THIS UNIT PROVIDES A MINIMUM ISOLATION OF 19 dB FROM LO TO RF WHILE MAINTAINING A MAXIMUM NOISE FIGURE OF 8.5 dB. THIS COMPACT MIXER MEASURES 1.000" x 0.725" x 0.510" AND IS OUTFITTED WITH FIELD REPLACEABLE SMA FEMALE CONNECTORS.

## REVISIONS DESCRIPTION **A1** 08/04/17 **ORIGINAL RELEASE**

# SPECIFICATIONS @ 25°C

• INPUT: ----- F1 = 870 MHz (I PORT)

P1 = +5 dBm

F2 = 9.77 TO 10.27 GHz (L PORT)

P2 = +12 dBm

• OUTPUT FREQUENCY: ----- 8.9 TO 9.4 GHz (R PORT)

• FREQUENCY RANGE: ----- 4.0 TO 12.0 GHz

• CONVERSION LOSS: ---- 8.5 dB (I  $\rightarrow$  R)

ISOLATION: ------ 19 dB (L → R)

30 dB (L  $\rightarrow$  I)

27 dB  $(I \rightarrow R)$ 

• NOISE FIGURE: ----- 8.5 dB MAXIMUM

• NOMINAL IMPEDANCE: ----- 50 Ω

• RF INPUT POWER: ------ 200 mW MAXIMUM @ +25°C

INPUT CURRENT: ------ 100 mADC PEAK

CONNECTORS: ----- MIL-C-39012 SMA FEMALE 3 PLACES

SIZE (EXCLUDING CONNECTORS): - 25.40 mm x 18.41 mm x 12.95 mm

1.000" x 0.725" x 0.510"

FINISH: ----- PAINTED BLUE

# **BLOCK DIAGRAM BALANCED PORT** (3)MAGIC TEE (4)A IS SAME AS A' B IS SAME AS B' **PMI CONFIDENTIAL AND PROPRIETARY**

#### **ENVIRONMENTAL RATINGS**

• TEMPERATURE: ----- -54 °C TO +100 °C (OPERATING) -65 °C TO +100 °C (NON-OPERATING)

• VIBRATION: ----- MIL-STD-202, METHOD 204 COND. D

SHOCK: ----- MIL-STD-202, METHOD 213 COND. C

• ALTITUDE: ------ SEA LEVEL TO 10,000 FT (OPERATING) 50,000 FT MAXIMUM (NON-OPERATING)

• HUMIDITY: ----- MIL-STD-202, METHOD 103 COND. B

• CORROSION: ----- MIL-STD-202, METHOD 106

NOTE 1: THE MIXER IS DESIGNED TO MEET THE LISTED ENVIRONMENTAL SPECS. NOTE 2: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION.

## PLANAR MONOLITHICS INDUSTRIES. INC.

7311-F GROVE ROAD

FREDERICK, MARYLAND 21704 USA TEL: (301)-662-5019, FAX: (301)-662-1731

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			PRODUCT FEATURE								
APPROVALS	DATE	DBMX-4G12G-19-8D5-SFF									
M.Berry	08/04/17		4.0 to 12.0 GHz Double-Balanced Mixer Up-Converter								
CHECKED		SIZE	FSCM NO.		DWG NO.			REV.			
MONTE .		Α	05XQ0		27033120			A1			
ISSUED		SCALE	N:S			SHEET	1 OF 2				

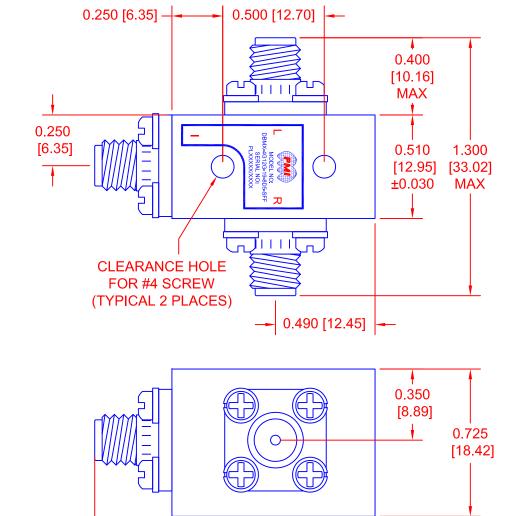
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ALL DIMENSIONS ARE IN INCH [mm] TOLERANCES:

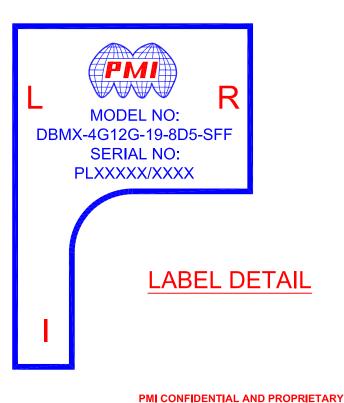
X.XX ± 0.020 [0.508] X.XXX ± 0.010 [0.254]

# MECHANICAL OUTLINE



- 1.000 [25.40]

1.400 [35.56] MAX -



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