

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER PDVAN-8018-120-8 IS AN 8-BIT PROGRAMMABLE 120 dB PIN DIODE ATTENUATOR WITH A STEP RESOLUTION OF 1.0 dB OVER THE FREQUENCY RANGE OF 8.0 GHz TO 18 GHz.

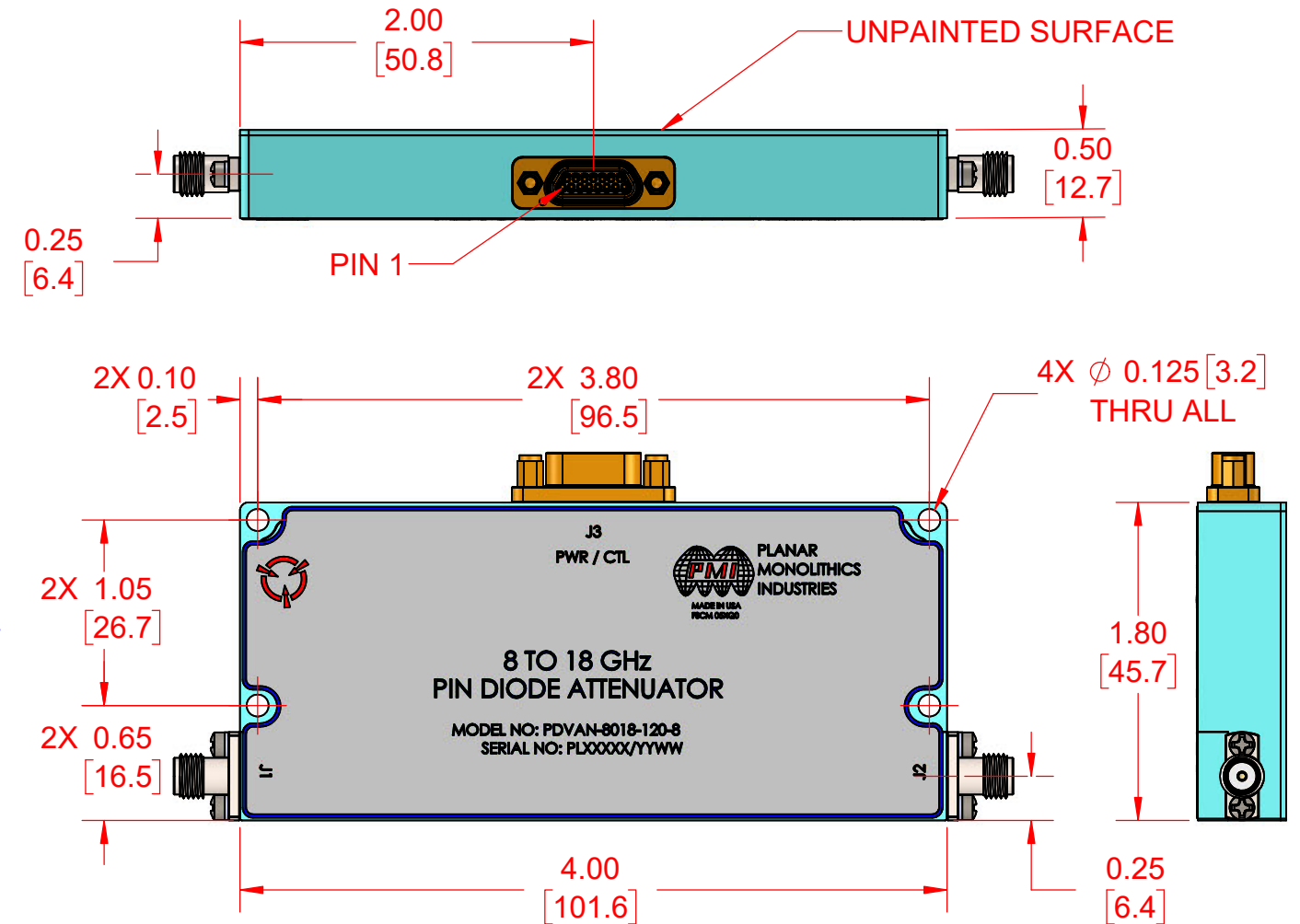
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	5/3/2021	
	A2	UPDATED POWER SUPPLY / PINOUT	6/2/2021	
	A3	ECN # 21-0170	10/25/2021	

SPECIFICATIONS @ 25°C:

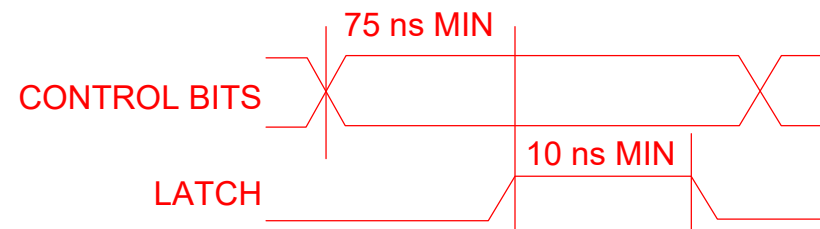
- FREQUENCY:..... 8.0 TO 18.0 GHz
- MEAN ATTENUATION RANGE:..... 120dB
- LSB:..... 1.0dB
- INSERTION LOSS:..... 8dB TYP, 8.5dB MAX
- VSWR:..... 2.0:1 MAX at 0dB Attenuation
- POWER RATING:..... +20dBm CW MIN (Operating)
+30dBm CW MAX (Survival)
- ATTENUATION FLATNESS:
 - @ 10dB ± 0.8dB
 - @ 20dB ± 1.1dB
 - @ 40dB ± 1.5dB
 - @ 60dB ± 1.6dB
 - @ 80dB ± 2.5dB
 - @ 100dB ± 3.2dB
- ATTENUATION ACCURACY:
 - @ 0 to 50dB ± 1.0dB
 - @ 50 to 60dB ± 1.5dB
 - @ 60 to 80dB ± 2.0dB
 - @ 80 to 120dB ± 2.5dB
- SWITCHING TIME:..... 3 usec MAX
- DIGITAL CONTROL:..... 8 BIT Binary TTL
- INPUT TRACKING:..... MONOTONIC
- POWER SUPPLY:..... +5.3V MIN, +6V MAX @ 700 mA MAX
- PWR/CTL CONNECTORS:..... 15 PIN Micro-D-Female
- RF CONNECTORS:..... SMA - FEMALE
- FINISH:..... BLUE EPOXY POLIMIDE COATING IAW MIL-C-22750,
TYPE I OVER EPOXY POLIMIDE PRIMER
IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.
(MOUNTING SURFACE GOLD PLATED)
- SIZE:..... 4.00" x 1.80" x 0.50"

PIN NO.	J3 PIN FUNCTION
1	GND
2	LATCHING STROBE
3	N/C
4	GND
5	0.5 dB (LSB)
6	1.0 dB
7	2.0 dB
8	4.0 dB
9	8.0 dB
10	16.0 dB
11	32.0 dB
12	64.0 dB (MSB)
13	+VDC
14	+VDC
15	N/C

- LOGIC INPUT:
LOGIC "0" (BIT OFF):..... -0.3 TO +0.8V
LOGIC "1" (BIT ON):..... +2.0 TO +5.0V



TIMING DIAGRAM



ENVIRONMENTAL RATINGS:

- TEMPERATURE:..... -55°C TO 85°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 107

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

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS DRAWN DPD REDRAWN ISSUED		DATE 5/3/2021	TITLE PRODUCT FEATURE PDVAN-8018-120-8 8-18 GHz, 120dB 8-BIT Attenuator	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ± .XX ± 0.02 ± .XXX ± 0.01		SIZE B	FSCM NO. 05XQ0	DWG NO. 27041560
SCALE 1:1			REV. A3	SHEET 1 OF 1

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