

DESCRIPTION

PMI MODEL: PDVAT-0518-60-8-93-10M18-HERM IS A 100 MHz TO 18 GHz VARIABLE PIN DIODE ATTENUATOR/MODULATOR WITH 8 BIT BINARY TTL CONTROL. THIS MODEL OFFERS A MAXIMUM INSERTION LOSS OF 5.25 dB WITH A TYPICAL RETURN LOSS OF 12 dB. THE COMPACT 2.00" x 1.81" x 0.50" HERMETICALLY SEALED HOUSING IS OUTFITTED WITH FIELD REPLACEABLE SMA FEMALE CONNECTORS.

SPECIFICATIONS

- FREQUENCY RANGE: ----- 100 MHz TO 18.0 GHz
- INSERTION LOSS: ----- 5.25 dB MAX
- ATTENUATION FLATNESS: ----- ±0.9 dB @ 10 dB
±1.5 dB @ 20 dB
±3.0 dB @ 40 dB
±5.0 dB @ 60 dB
- ATTENUATION ACCURACY: ----- ±1.0 dB FROM 0 dB TO 30 dB
±1.3 dB FROM 30 dB TO 50 dB
±1.5 dB FROM 50 dB TO 60 dB
- MONOTONICITY: ----- GUARANTEED
- TEMPERATURE VARIATION: ----- ±2.5 dB FROM -10 °C TO +85 °C
±3.5 dB FROM -40 °C TO +95 °C
- SWITCHING TIME: ----- 5 µs MAX
- RETURN LOSS: ----- 8.5 dB MIN
12 dB TYP
- POWER RATING: ----- +20 dBm
- DIGITAL CONTROL: ----- 8 BIT TTL WITH 0.25 dB MIN ATTENUATION STEP (SEE TABLE)
- POWER SUPPLY: ----- +12 VDC TO +15 VDC @ 150 mA MAX
- CONNECTORS: ----- RF: FIELD REPLACEABLE SMA FEMALE (INPUT & OUTPUT)
POWER/CONTROL: 15 PIN MICRO-D FEMALE
(MATING MALE CONNECTOR TO BE SUPPLIED WITH UNIT)
- SIZE: ----- 2.00" x 1.81" x 0.50"
(EXCLUDING CONNECTORS)
- SEALING: ----- HERMETIC
- FINISH: ----- PAINTED BLUE

ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -40 °C TO +85 °C (OPERATING)
-65 °C TO +125 °C (NON-OPERATING)
- HUMIDITY: ----- MIL-STD-202, METHOD 103B, COND. B
- SHOCK: ----- MIL-STD-202, METHOD 213B, COND. B
- VIBRATION: ----- MIL-STD-202, METHOD 204D, COND. B
- ALTITUDE: ----- MIL-STD-202, METHOD 105C, COND. B
- TEMPERATURE CYCLE: ----- MIL-STD-202, 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
	-	PRELIMINARY	3/18/20	

8 BIT TRUE BINARY LOGIC TABLE

J3 PIN #	FUNCTION
1	2.0 dB
2	1.0 dB
3	0.5 dB
4	0.25 dB
5	GROUND
6	NO CONNECT
7	NO CONNECT
8	NO CONNECT
9	NO CONNECT
10	NO CONNECT
11	+VDC
12	32.0 dB
13	16.0 dB
14	8.0 dB
15	4.0 dB

PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD

FREDERICK, MARYLAND 21704 USA

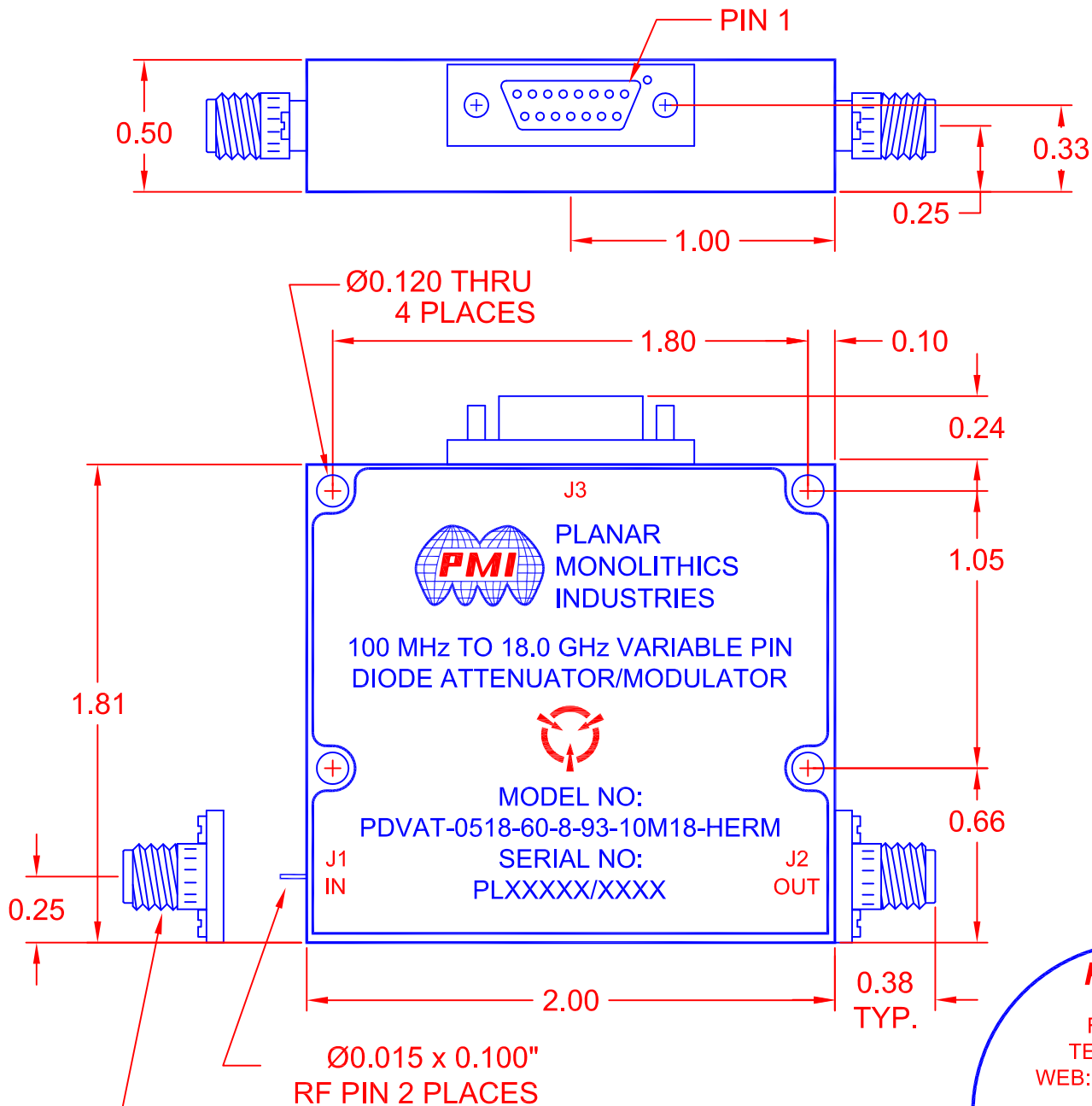
TEL: (301)-662-5019, FAX: (301)-662-1731

WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com

ISO 9001 CERTIFIED



APPROVALS		DATE	TITLE			
DRAWN <i>M. Berry</i>		09/19/17	PRODUCT FEATURE PDVAT-0518-60-8-93-10M18-HERM			
REDRAWN <i>BW</i>		3/18/20	100 MHz to 18.0 GHz Variable Pin Diode Attenuator/Modulator			
ISSUED			SIZE A	FSCM NO. 05XQ0	DWG NO. PRELIMINARY	REV. -
			SCALE N:S	SHEET 1 OF 3		



MECHANICAL OUTLINE

8 BIT TRUE BINARY LOGIC TABLE

J3 PIN #	FUNCTION
1	2.0 dB
2	1.0 dB
3	0.5 dB
4	0.25 dB
5	GROUND
6	NO CONNECT
7	NO CONNECT
8	NO CONNECT
9	NO CONNECT
10	NO CONNECT
11	+VDC
12	32.0 dB
13	16.0 dB
14	8.0 dB
15	4.0 dB

PLANAR MONOLITHICS INDUSTRIES, INC.
 7311-F GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: (301)-662-5019, FAX: (301)-662-1731
 WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
 ISO 9001 CERTIFIED



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

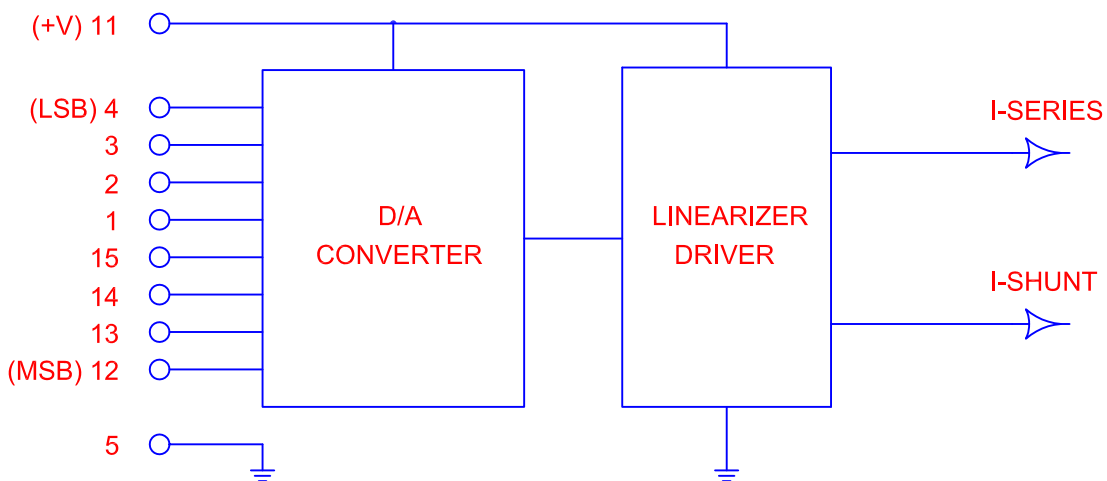
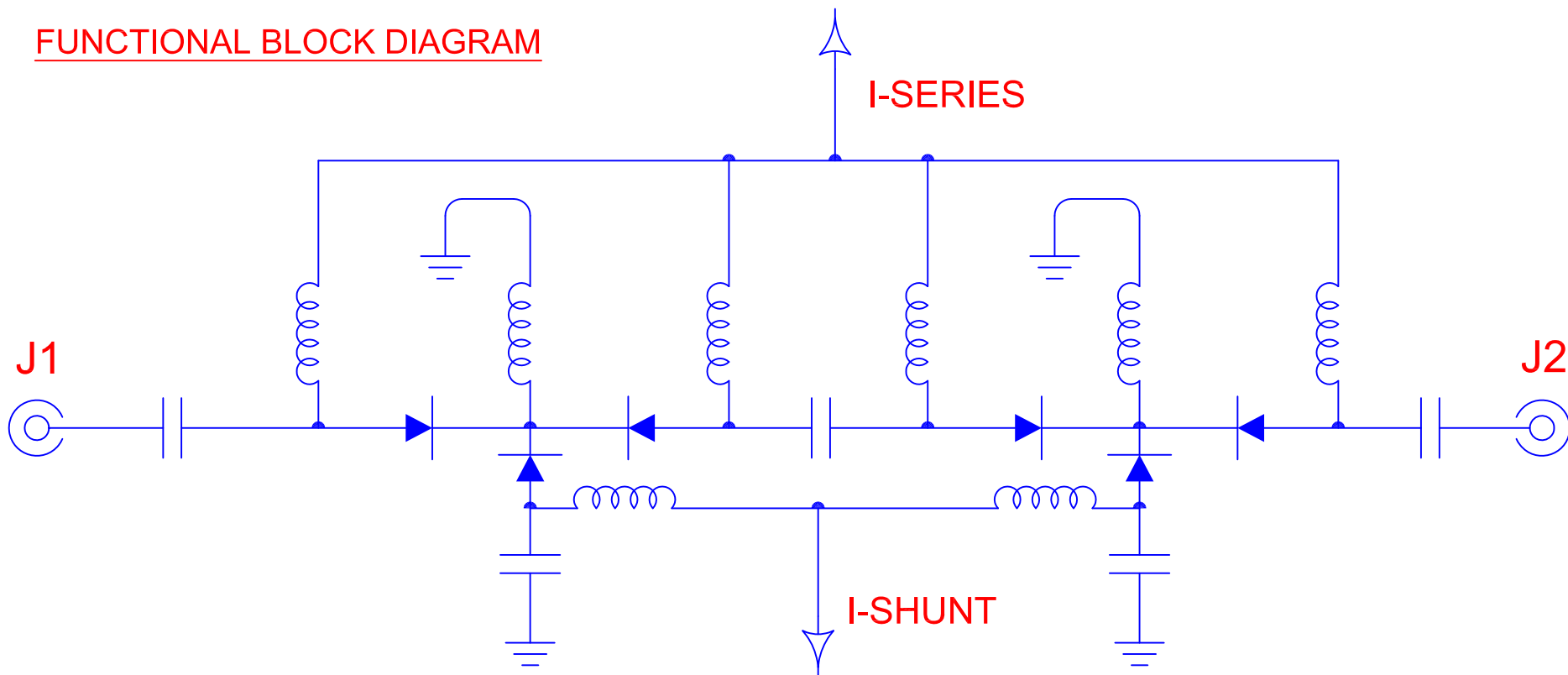
ALL DIMENSIONS ARE IN INCH

TOLERANCES:
 X.XX ±0.020
 X.XXX ±0.010

PMI CONFIDENTIAL AND PROPRIETARY

APPROVALS		DATE	TITLE			
DRAWN <i>M. Berry</i>		09/05/17	PRODUCT FEATURE PDVAT-0518-60-8-93-10M18-HERM 100 MHz to 18.0 GHz Variable Pin Diode Attenuator/Modulator			
REDRAWN <i>EW</i>		9/18/20	SIZE	FSCM NO.	DWG NO.	REV.
ISSUED			A	05XQ0	PRELIMINARY	-
			SCALE	N:S	SHEET	2 OF 3

FUNCTIONAL BLOCK DIAGRAM



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

PMI CONFIDENTIAL AND PROPRIETARY

PLANAR MONOLITHICS INDUSTRIES, INC.
 7311-F GROVE ROAD
 FREDERICK, MARYLAND 21704 USA
 TEL: (301)-662-5019, FAX: (301)-662-1731
 WEB: www.pmi-rf.com, EMAIL: sales@pmi-rf.com
 ISO 9001 CERTIFIED



APPROVALS		DATE		TITLE			
DRAWN <i>M. Berry</i>		09/05/17		PRODUCT FEATURE			
REDRAWN <i>EW</i>		3/18/20		PDVAT-0518-60-8-93-10M18-HERM			
ISSUED		SIZE A	FSCM NO. 05XQ0	DWG NO.	PRELIMINARY		REV. -
SCALE N:S				SHEET		3 OF 3	