

## DESCRIPTION:

PMI MODEL NUMBER DTA-0R5G18G-60-12-CD-1 IS A NON-REFLECTIVE 12 BIT PROGRAMMABLE 60 dB PIN DIODE ATTENUATOR WITH STEP RESOLUTION AS LOW AS 0.06 dB OVER THE FREQUENCY RANGE OF 0.5 TO 18.0 GHz. THIS MODEL IS OFFERED IN A SLIM LINE HOUSING MEASURING ONLY 0.5" HEIGHT.

## SPECIFICATIONS:

- FREQUENCY: 0.5 GHz TO 18.0 GHz
- MEAN ATTENUATION RANGE: 60 dB
- INSERTION LOSS: 4.8 dB MAX
- VSWR: 2.0 :1 MAX
- FLATNESS UP TO:
  - 20 dB  $\pm 1.0$  dB TYP
  - 40 dB  $\pm 1.25$  dB TYP
  - 60 dB  $\pm 3.0$  dB TYP
- ACCURACY OF ATTENUATION:
  - 0 dB TO 20 dB  $\pm 1.0$  dB TYP
  - 20 dB TO 40 dB  $\pm 1.5$  dB TYP
  - 40 dB TO 60 dB  $\pm 2.0$  dB TYP
- MINIMUM ATTENUATION STEP: 0.016 dB
- OPERATING POWER: 15dBm TYP
- SURVIVAL POWER: 1W Average from -65°C to +25°C
- SWITCHING TIME:
  - ON TIME 1.0 us MAX
  - OFF TIME 0.5 us MAX
- DC POWER SUPPLY: +15V @ 150 mA MAX
- CONNECTORS: 2 SMA & 15 PIN Micro-D-Female  
Shipped with Mating Micro-D Male
- WEIGHT: 3.0 oz (85 gm) Approximate
- 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.
- LOGIC INPUT:
  - LOGIC "0" (BIT OFF) -0.3 to +0.8V
  - LOGIC "1" (BIT ON) +2.0 to +5.0V

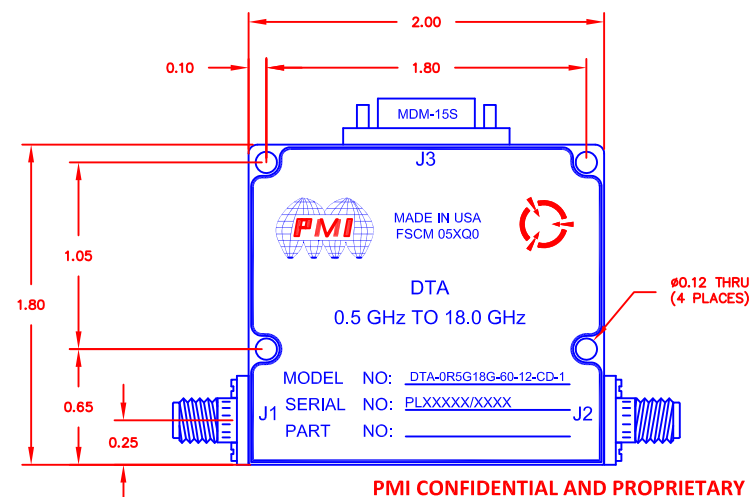
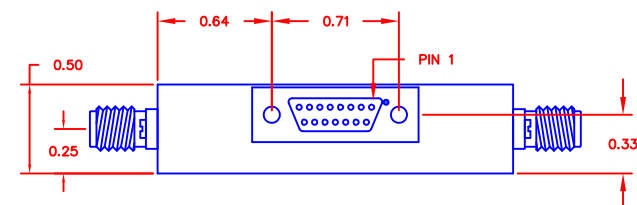
## ENVIRONMENTAL RATINGS:

- TEMPERATURE: -40°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

| PIN NO: | J3 PIN FUNCTIONS |
|---------|------------------|
| 1       | 2dB              |
| 2       | 1dB              |
| 3       | 0.5dB            |
| 4       | 0.25dB           |
| 5       | GND              |
| 6       | 0.13 dB          |
| 7       | 0.06 dB          |
| 8       | GND              |
| 9       | 0.03 dB          |
| 10      | 0.016 dB (LSB)   |
| 11      | +12VDC           |
| 12      | 32dB (MSB)       |
| 13      | 16dB             |
| 14      | 8dB              |
| 15      | 4dB              |

| REVISIONS |      |             |          |          |
|-----------|------|-------------|----------|----------|
| ZONE      | REV. | DESCRIPTION | DATE     | APPROVED |
|           | 1    | PRELIMINARY | 10/31/17 |          |
|           |      |             |          |          |
|           |      |             |          |          |



PMI CONFIDENTIAL AND PROPRIETARY

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| APPROVALS         |  | DATE     |  | TITLE                  |                     |              |
|-------------------|--|----------|--|------------------------|---------------------|--------------|
| DRAWN <i>flk</i>  |  | 10/15/12 |  | PRODUCT FEATURE        |                     |              |
| REDRAWN <i>EW</i> |  | 10/31/17 |  | DTA-0R5G18G-60-12-CD-1 |                     |              |
| ISSUED            |  |          |  | SIZE A                 | FSCM NO. 05XQ0      | REV. 1       |
|                   |  |          |  | SCALE N:S              | OWG NO. PRELIMINARY | SHEET 1 OF 1 |

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$