

## DESCRIPTION

PMI MODEL NUMBER DTA-22G28G-50-CD-1 IS A 50 DB MONOTONIC PROGRAMMABLE ATTENUATOR WITH 11-BIT RESOLUTION THAT PROVIDES A STEP SIZE OF 0.025 DB. IT HAS ALSO BEEN DESIGNED TO HAVE VERY LOW INSERTION LOSS OVER THE FREQUENCY RANGE OF 22.5 TO 27.5GHz.

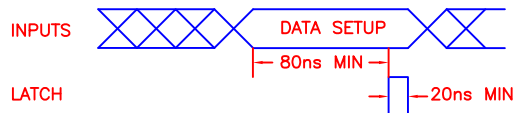
## SPECIFICATIONS

- FREQUENCY RANGE: 22.5 to 27.5GHz
- ATTENUATION RANGE: 0 TO 51.175dB
- NUMBER OF BITS: 11-BITS (2048 STEPS)
- MAX STEP SIZE: 0.04dB
- MAX INPUT POWER: 10mW (CW OR PEAK)
- INSERTION LOSS: 3.5dB MAX
- VSWR: 2.2:1 MAX
- FLATNESS @ 20dB: ± 1.0 dB MAX
- FLATNESS @ 50dB: ± 2.0 dB MAX
- ATTENUATION ACCURACY 0 to 30: ± 1.0 dB MAX
- ATTENUATION ACCURACY 30 to 50: ± 1.5 dB MAX
- POWER SUPPLY: +15V @100mA MAX
- POWER SUPPLY REJECTION: 0.1dB/VOLT MAX
- SWITCHING SPEED: 500nSec MAX
- RF CONNECTORS: 2.92mm FEMALE INPUT AND OUTPUT
- DATA CONTROL INPUT: TRUE BINARY (NOT BCD)  
TTL LOGIC LEVELS
- LATCH: SEE LATCH TRUTH TABLE
- SIZE: 1.800" X 1.150" X 0.400"
- FINISH: GRAY EPOXY POLIMIDE COATING IAW MIL-C-22750, TYPE I OVER EPOXY POLIMIDE PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3.

15-PIN CONNECTOR PIN-OUT	
PIN	FUNCTION
1	0.025dB (LSB)
2	0.050dB
3	0.100dB
4	0.200dB
5	0.400dB
6	0.800dB
7	1.600dB
8	3.200dB
9	6.400dB
10	12.80db
11	25.60dB (MSB)
12	NC
13	+15 VDC
14	GND
15	LATCH

LATCH TRUTH TABLE	
LOGIC 1	DATA TRANSPARENT
LOGIC 0	DATA LOCKED

## INPUT TIMING DIAGRAM



NOTE1: ALLOW AT LEAST 80nSec FOR DATA SETUP BEFORE LATCH LOGIC 1

NOTE2: IF LATCH IS NOT USED LEAVE LATCH PIN UNCONNECTED (DEFAULT LOGIC 1)

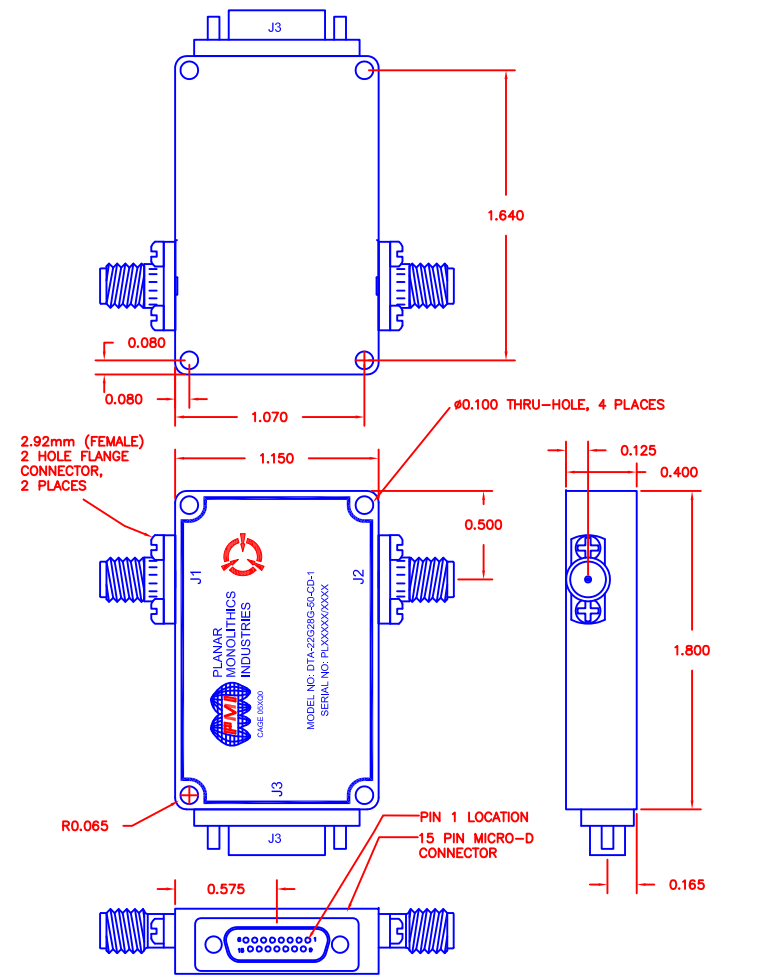
## ENVIRONMENTAL RATINGS

- TEMPERATURE: -40°C TO +85°C (OPERATING)  
-54°C TO +100°C (STORAGE)
- HUMIDITY: 95% MAX
- SHOCK: MIL-STD-202G, METHOD 213B COND. B
- VIBRATION: MIL-STD-202G, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202G, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202G, METHOD 107D COND. A

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

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX ±0.020  
X.XXX ±0.010

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	8-16-13	



PMI CONFIDENTIAL AND PROPRIETARY

## PLANAR MONOLITHICS INDUSTRIES, INC.

7311-F GROVE ROAD  
FREDERICK, MARYLAND 21704 USA  
TEL: 301-662-5019 FAX: 301-662-1731  
WEBSITE: [www.pmi-rf.com](http://www.pmi-rf.com)  
E-MAIL: [sales@pmi-rf.com](mailto:sales@pmi-rf.com)  
ISO 9001:2008 CERTIFIED



APPROVALS		DATE	TITLE		
DRAWN	PJK	8-16-13	PRODUCT FEATURE		
MODIFIED			27017381		
ISSUED			DTA-22G28G-50-CD-1		
	SIZE	FSCM NO.	DWG NO.	REV.	
	A	05XQ0	27017381	A1	
	SCALE	N:S		SHEET	1 OF 1