# DAT-20-482/1S

# **DIGITAL STEP ATTENUATOR**



## **SPECIFICATIONS**

Name:	DAT-20-482/1S
Frequency Range:	8-12.4 GHz
Attenuation Range:	32 dB
Number of Bits:	8
Insertion Loss:	5.5 dB max.
VSWR:	2.00:1 dB max.
Least Significant Bit:	0.125 LSB
Connector Type:	SMA

Resolution of 8 bit is standard, up to 12 bits available.

<b>Operating Power:</b>	<= 0 dBm			
Power Handling:	+27 dBm max.			
Switching Time:	600 nsec typical.			
Control Logic:	TTL			
Power supply:	+12 to +15 Volts @ +100 mA, Typical			
	-12 to -15 Volts @ -50 mA, Typical			
Operating Temperature: -25°C to +80°C				

RF Connectors: SMA Female Bi-directional: Either SMA connector can be used as input.

#### This is a commercial off the shelf (COTS) product. For an equivalent product that meets DFARS materials compliance, contact sales. All specifications are subject to change without notice at any time. Rev: 190722



## ATTENUATOR ACCURACY VS. Frequency

Bandw	idth (2:1)	Bandw	idth (4:1)
Flatness (dB)	Attenuation (dB)	Flatness (dB)	Attenuation (dB)
±0.5	0-10	±0.6	0-10
±0.8	0-20	±1.2	0-20
±1.2	0-30	±1.8	0-30
±1.5	0-40	±2.2	0-40
±2.2	0-64	±3.5	0-64

#### Logic Table

State	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Att. 32 dB
-	0	0	0	0	0	0	0	0	0 dB
1	1	0	0	0	0	0	0	0	0.125 dB
2	0	1	0	0	0	0	0	0	0.25 dB
3	0	0	1	0	0	0	0	0	0.50 dB
4	0	0	0	1	0	0	0	0	1.0 dB
5	0	0	0	0	1	0	0	0	2.0 dB
6	0	0	0	0	0	1	0	0	4.0 dB
7	0	0	0	0	0	0	1	0	8.0 dB
8	0	0	0	0	0	0	0	1	16.0 dB

A combination of the above states will provide an attenuation equal to the sum of the selected states.

#### Pin-Out

1	0 0	) 0	0 0	0	8
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Pin 01 = Bit 1 (LSB)	Pin 09 = N/C
Pin 02 = Bit 2	Pin 10 = N/C
Pin 03 = Bit 3	Pin 11 = N/C
Pin 04 = Bit 4	Pin 12 = N/C
Pin 05 = Bit 5	Pin 13 = +12 to +15 Vdc
Pin 06 = Bit 6	Pin 14 = -12 to -15 Vdc
Pin 07 = Bit 7	Pin 15 = Ground
Pin 08 = Bit 8	



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