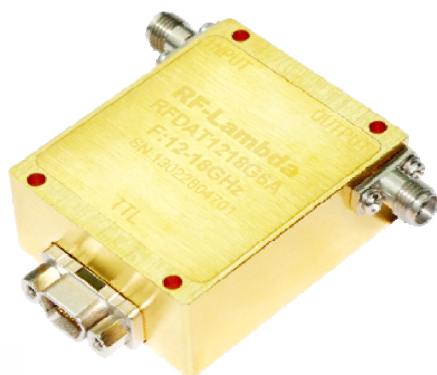




Absorptive Digital Control Attenuator 12-18GHz



Features

- Wide Band Operation 12-18GHz
- 1dB LSB Steps to 63dB
- Single Positive Control Line Per Bit
- Customization available upon request

Electrical Specifications, TA = +25° C, With Vdd = +5V, Vss = -5V & VCTL = 0/ +5V

Description	PN: RFDAT1218G6A			
	Absorptive Digital Attenuator			
Parameters	Min	Typ.	Max	Units
Frequency Range	12		18	GHz
Insertion Loss		11.5	12.5	dB
Insertion Loss Temperature Coefficient		0.005		dB/°C
Attenuation Flatness: (Referenced to Insertion Loss)		±3	±3.5	dB
Input VSWR(All Atten. States)		1.4	1.5	
Output VSWR (All Atten. States)		1.4	1.5	
Input Power for 0.1 dB Compression		27		dBm
IM3		43		dBc
Switching Speed			50	ns
Weight	3.2			ounces
Impedance	50			Ω
Biasing (+5V/-5V)	130			mA
Input /Output Connector	SMA-Female/SMA-Female (Standard)			
Control PIN	MICRO-D9			
Finishing	Gold Plating			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			



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RFDAT1218G6A

Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2~5V
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-50 ~ +125

Ordering Information

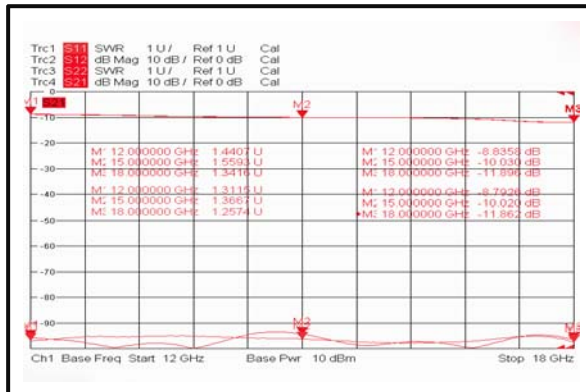
Part No	ECCN	Description
RFDAT1218G6A	EAR99	12-18GHz Digital Control Attenuator

Environment specifications

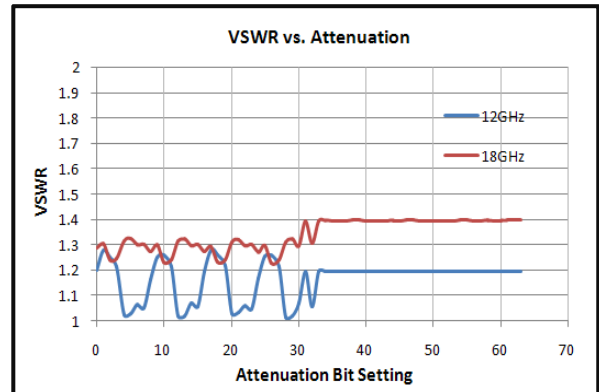
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc half sin wave,3 axis both directions

Typical performance plots

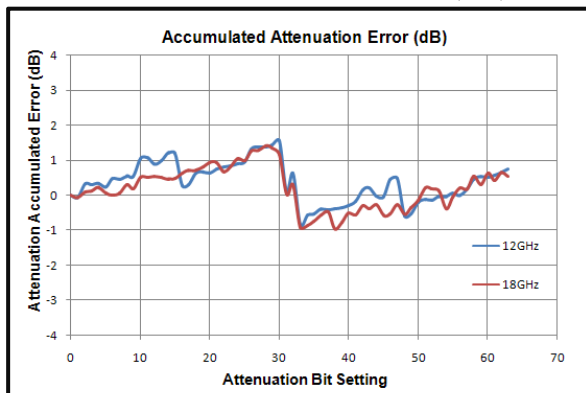
Insertion Loss



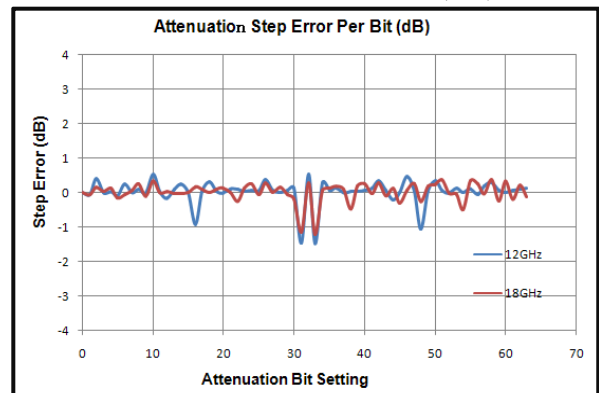
VSWR vs. Attenuation



Accumulated Attenuation Error (dB)



Attenuation Step Error Per Bit (dB)



Absorptive Digital Control Attenuator 12-18GHz

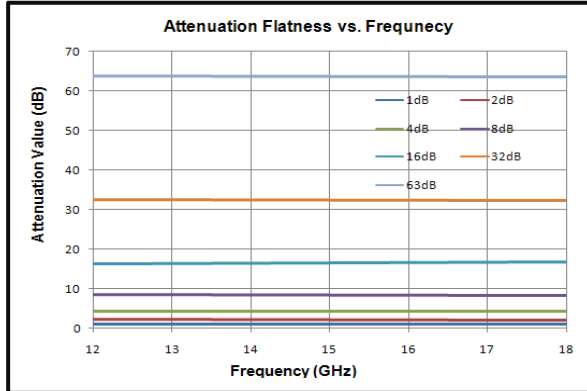


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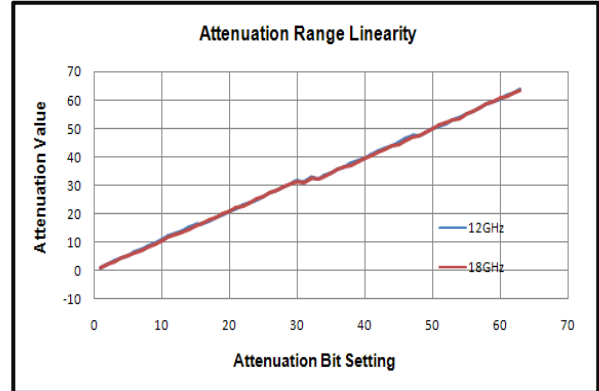
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RFDAT1218G6A

Attenuation Flatness vs. Frequency

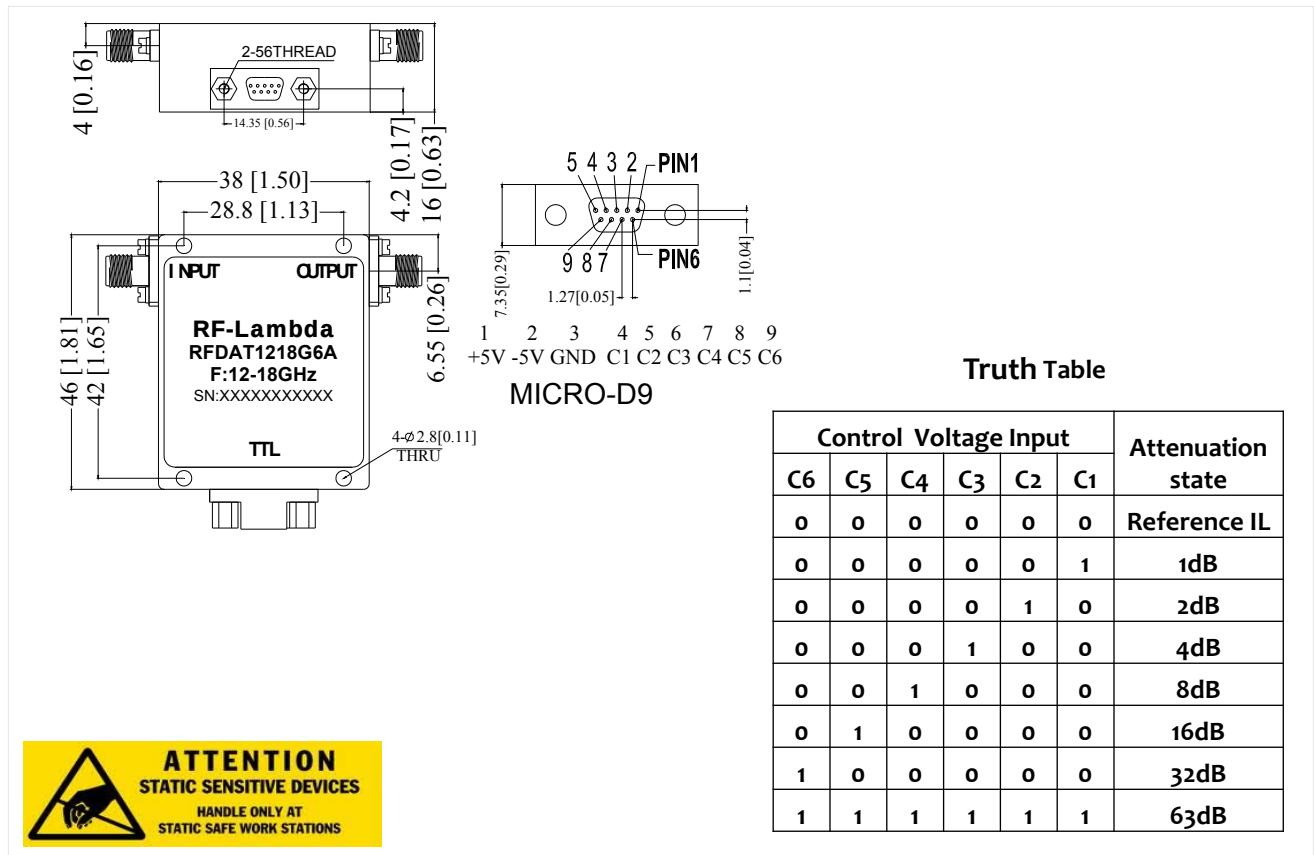


Attenuation Range Linearity



Outline Drawing:

All Dimensions in mm (inches)



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