

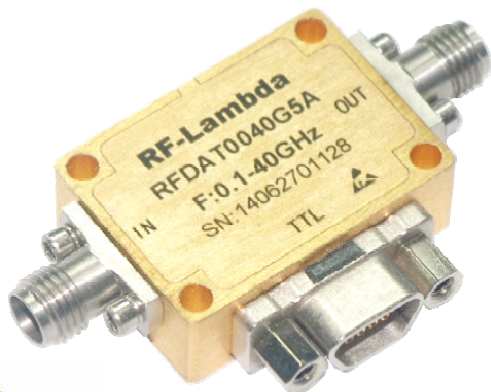


RF-LAMBDA

The power beyond expectations

RFDAT0040G5A

Absorptive Digital Control Attenuator 0.1-40GHz



Features

- Ultra Wide Band Operation 0.1-40GHz
- 1dB LSB Steps to 31dB
- 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: RFDAT0040G5A									
	Absorptive Digital Attenuator									
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	0.1-18			18-30			30-40			GHz
Insertion Loss		4.5	5		7	7.5		8	9	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Attenuation Flatness: (Referenced to Insertion Loss)			±1			±2			±3	dB
Input VSWR(All Atten. States)			1.5			2			2.2	ratio
Output VSWR (All Atten. States)			1.5			2			2.2	ratio
Input Power for 0.1 dB Compression		25			25			25		dBm
IM3		43			43			43		dBm
Switching Speed			200			200			200	ns
Weight	30									g
Impedance	50									Ω
Biasing(+5V/-5V)	10/10									mA
Input /Output Connector	2.92mm-Female (Standard)									
Control PIN	MICRO-D9									
Finishing	Gold Plating									
Material	Aluminum									
Seal	Hermetically Sealed (optional)									

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Absolute Maximum Ratings

Biasing	+5V/-5V
TTL Control Voltage	+5V/0V
RF Input power	+25dBm
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-50 ~ +125

Ordering Information

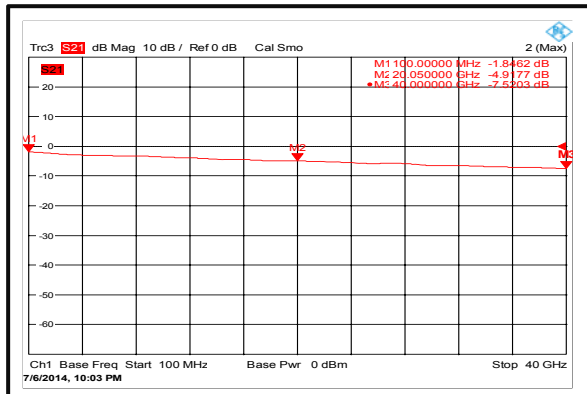
Part No	ECCN	Description
RFDAT0040G5A	EAR99	0.1-40GHz Digital Control Attenuator

Environment specifications

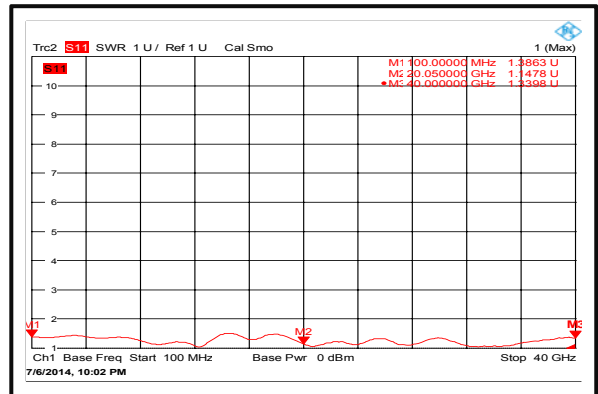
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

performance plots

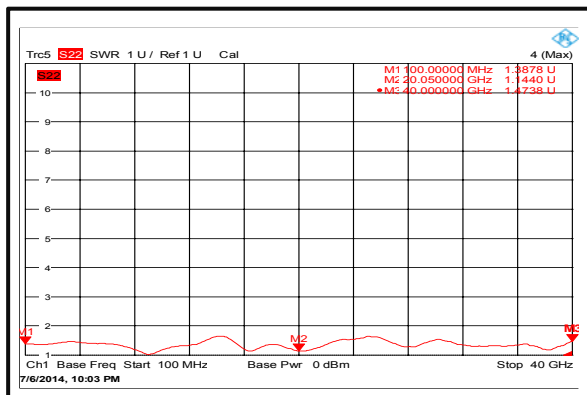
Insertion Loss



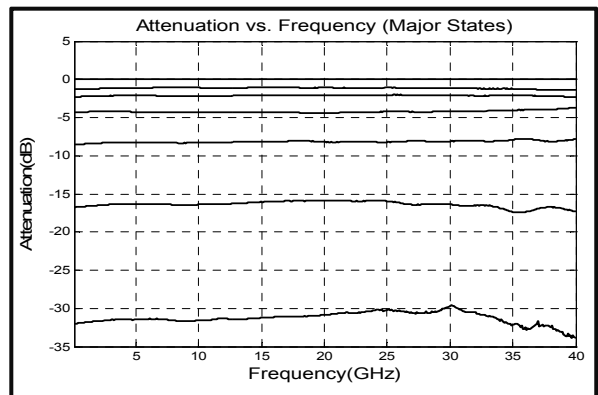
Input VSWR



Output VSWR



Attenuation vs. Frequency



Absorptive Digital Control Attenuator 0.1-40GHz

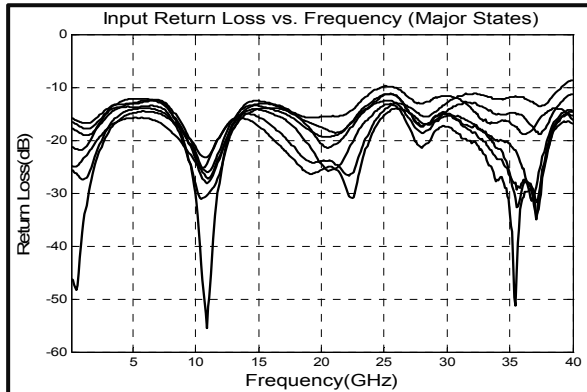


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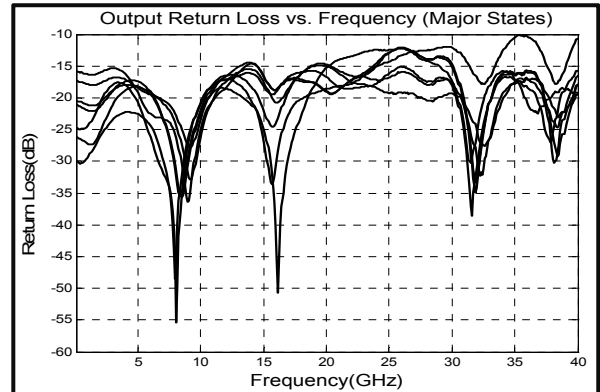
The power beyond expectations

RFDAT0040G5A

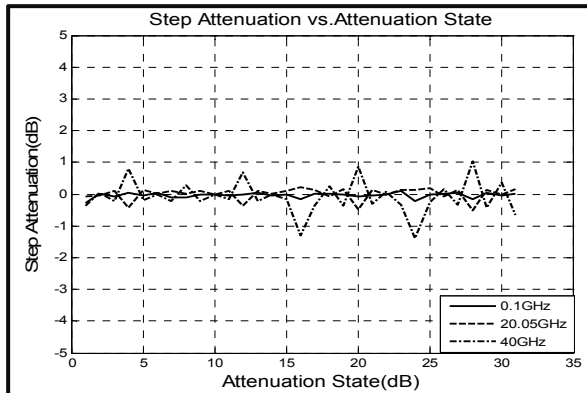
Input Return Loss vs. Frequency



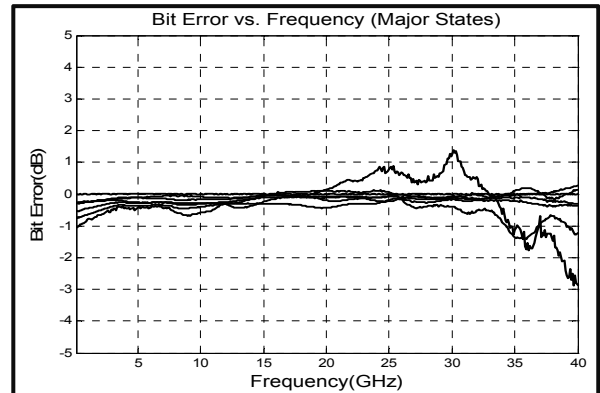
Output Return Loss vs. Frequency



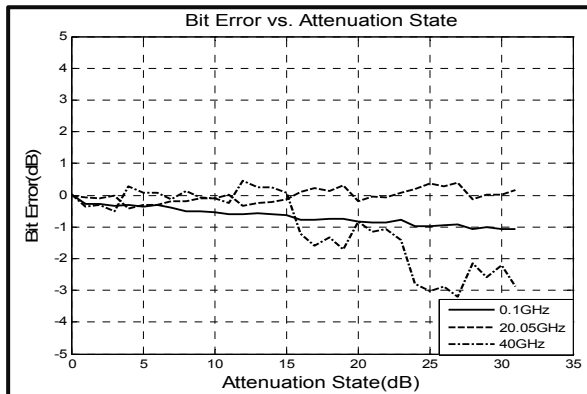
Step Attenuation vs. Attenuation State



Bit Error vs. Frequency



Bit Error vs. Attenuation State

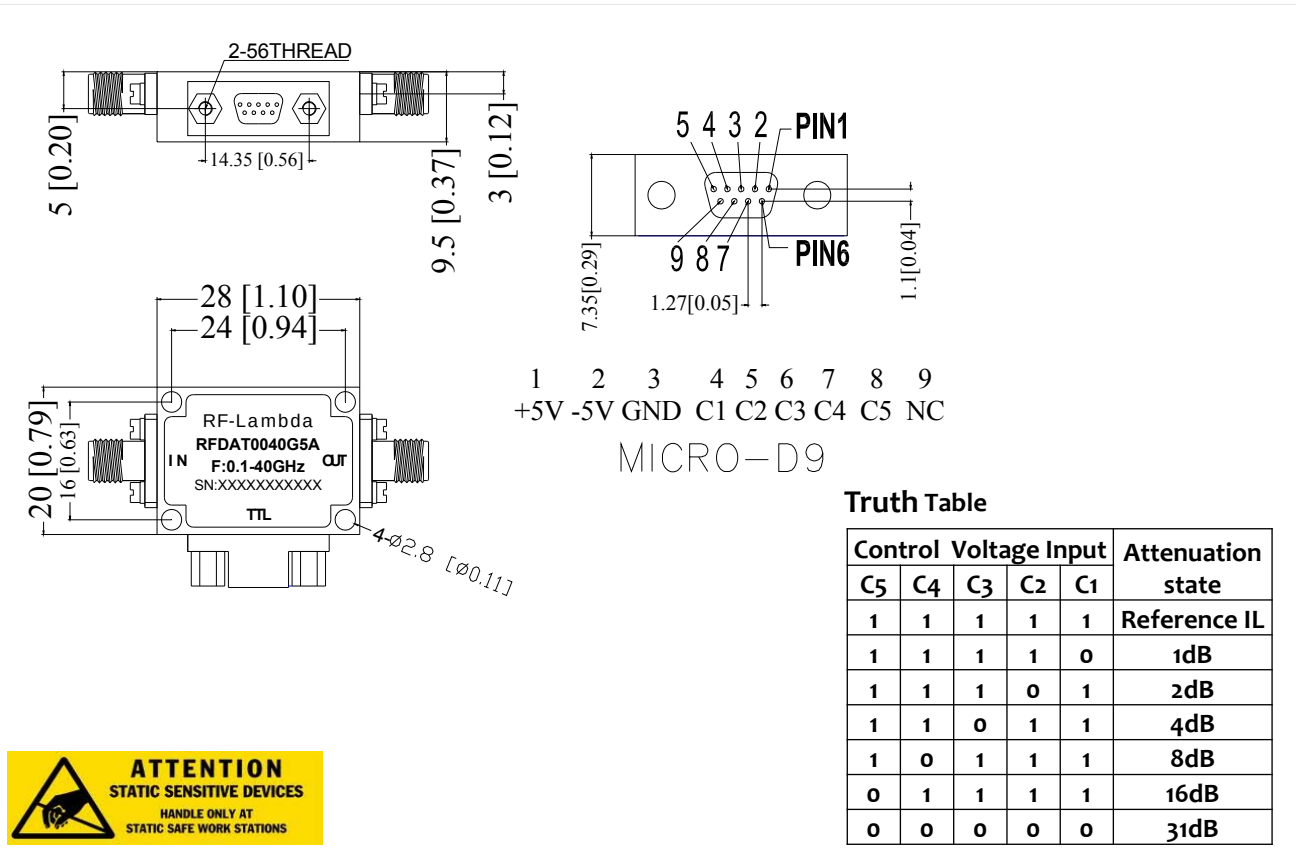


Absorptive Digital Control Attenuator 0.1-40GHz



Outline Drawing:

All Dimensions in mm (inches)



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