



6 Bits 63dB Digital Control Attenuator 6-18GHz



Features

- Wide Band Operation 6-18GHz
- High Power Handle up to 1W upon request.
- High Dynamic Range over 63dB
- Low attenuation error 6 bits
- Operation Temperature Range -40°C~+85°C
- Customization available upon request

Parameter	Frequency(GHz)	Min	Type	Max	Units
Insertion Loss	6GHz		4.8	5.5	dB
	12GHz		7.6	8.5	
	18GHz		15.0		dB
Attenuation Range	18GHz		63		dB
Attenuation Step	6~18		1		dB
Control Bits			6		
VSWR (All Atten States)	6~18		1.8	2.0	
Attenuation Accuracy (referenced to Loss)	6~18	0~10dB	±0.5		dB
		10-31dB	±1		
		31-63dB	±1.5		
Input Power For 0.1dB Compression	6~18		24		dBm
Input Third Order Intercept Point (Input Power= 0 dBm Each one)	6~18		40		dBm
Switching Characteristics tRISE, tFALL (10/90% RF) tON/tOFF (10/90% RF)	6~18		70		ns
			100		
Impedance(Ohms)		50			Oh
Idd /Iss		120/120			mA
Weight		100			g
Input / Output Connector	SMA-Female/SMA-Female				
Finishing	Gold Plating				
Material	Brass or Aluminum				

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



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The power beyond expectations

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Control Voltage Input								Attenuation state
V7	V6	V5	V4	V3	V2	V1	V0	
x	x	1	1	1	1	1	1	Reference IL
x	x	1	1	1	1	1	0	1dB
x	x	1	1	1	1	0	1	2dB
x	x	1	1	1	0	1	1	4dB
x	x	1	1	0	1	1	1	8dB
x	x	1	0	1	1	1	1	16dB
x	x	0	1	1	1	1	1	32dB

Biasing Up Procedure	
Step 1	-5V
Step 2	+5V
Step 3	TTL

Power OFF Procedure	
Step 1	+5V
Step 2	-5V
Step 3	TTL

Absolute Maximum Ratings	
Biasing	+5 V, -5V
TTL Control Voltage	+5V/0V
Input RF power	+24dBm
Storage Temperature (C°)	-50 ~ +125

Ordering Information		
Part No	ECCN	Description
RFDAT0618G6A	EAR99	DAT6-18GHz PIN Diode Attenuation

Environment specifications	
Operational Temperature (C°)	-45 ~ +85
Storage Temperature (C°)	-50 ~ +125
Vibration	25g rms (15 degree 2KHz)
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc

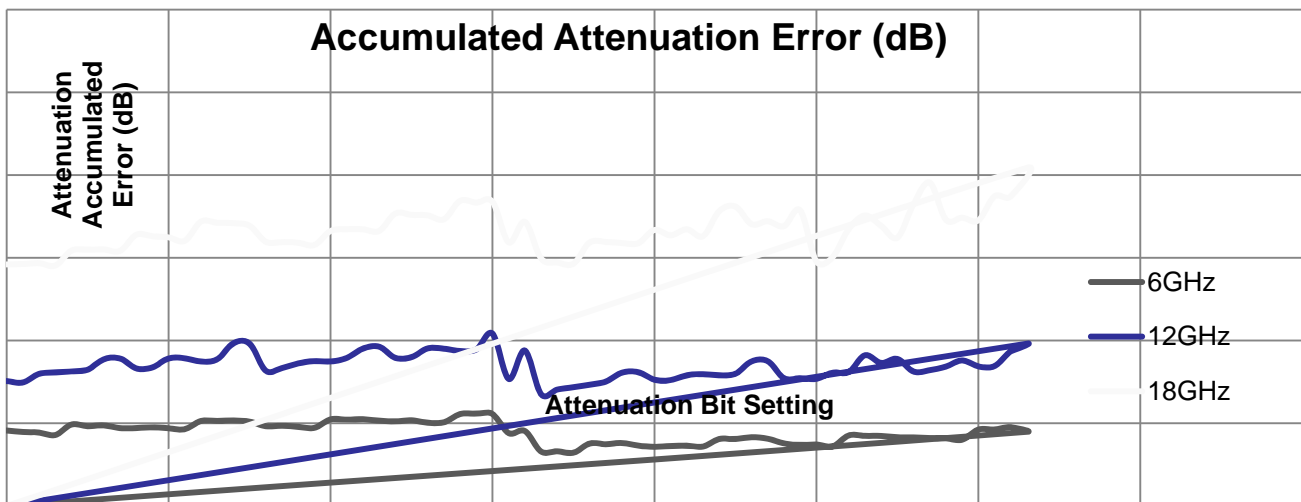
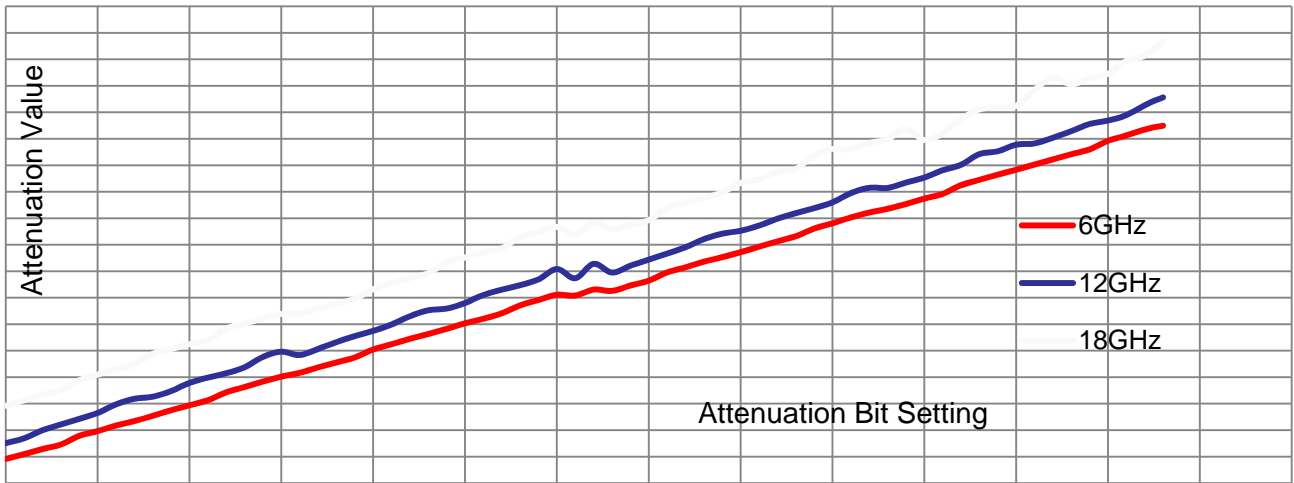
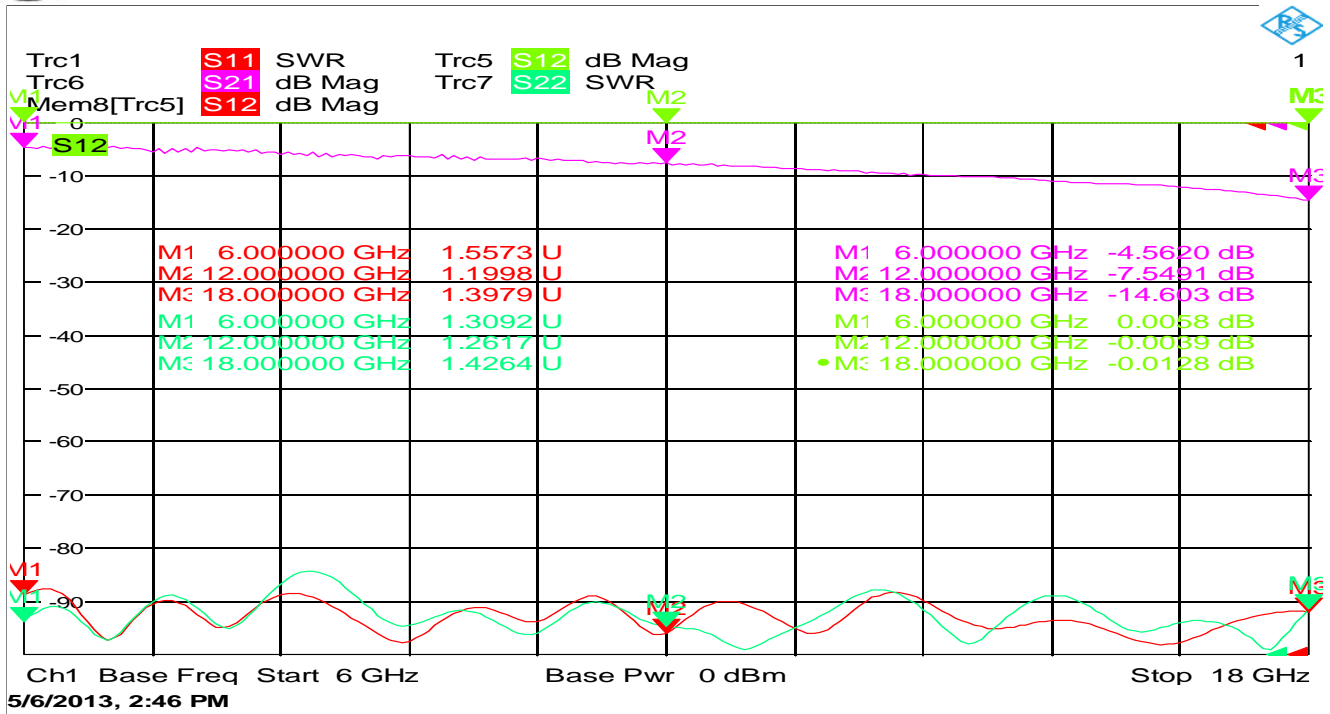


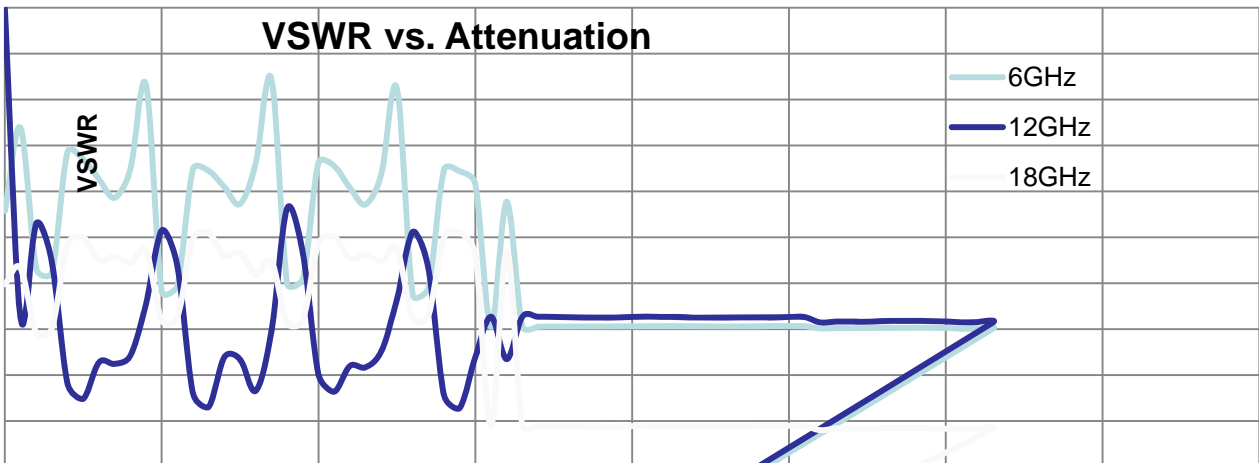
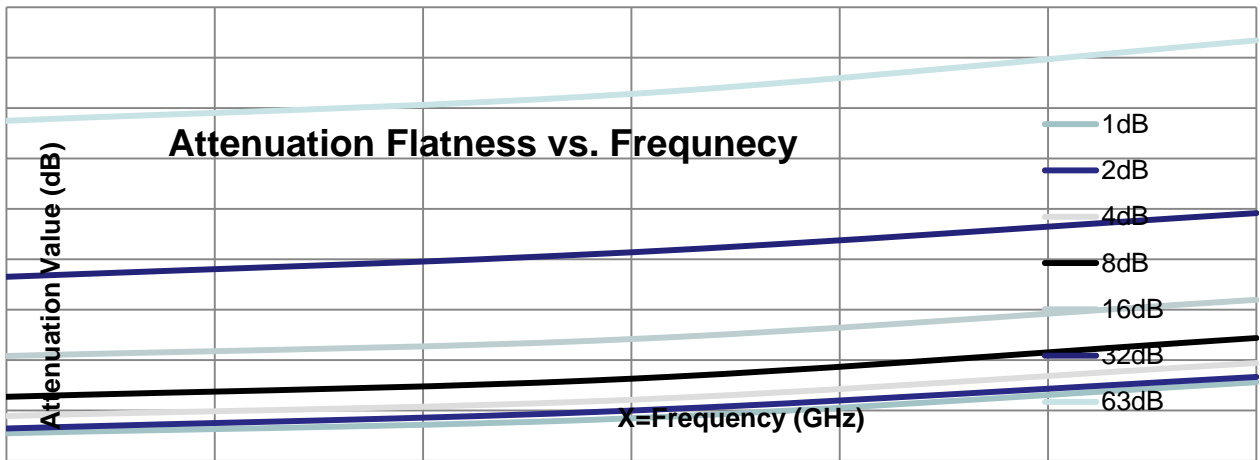
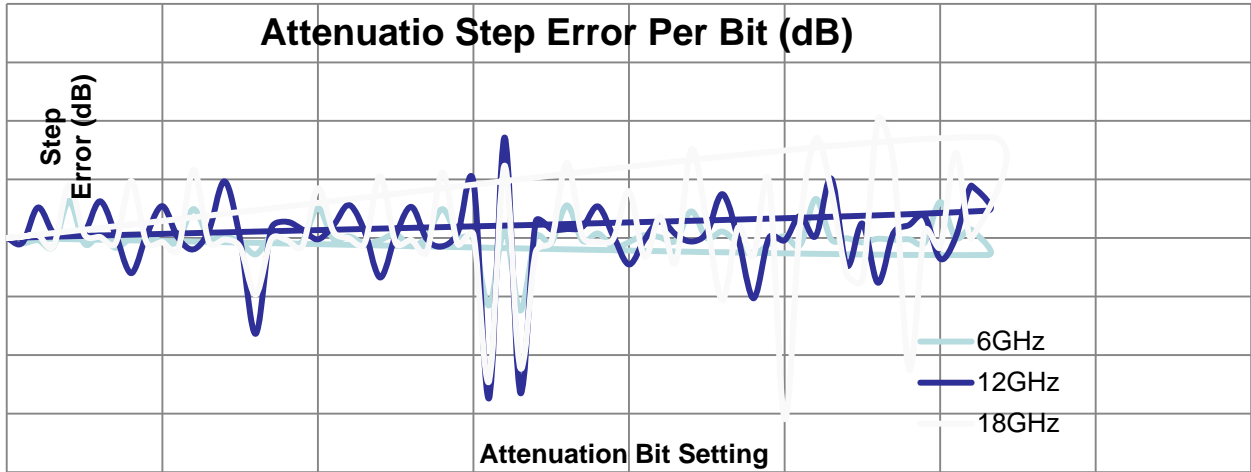
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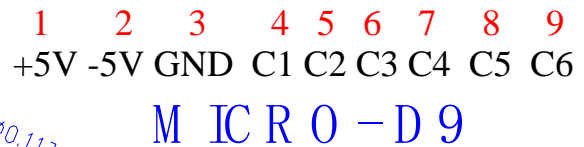
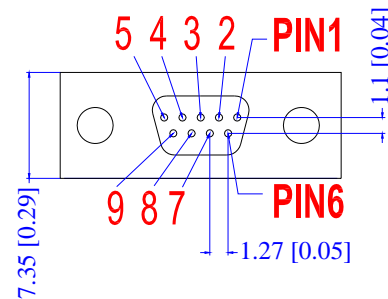
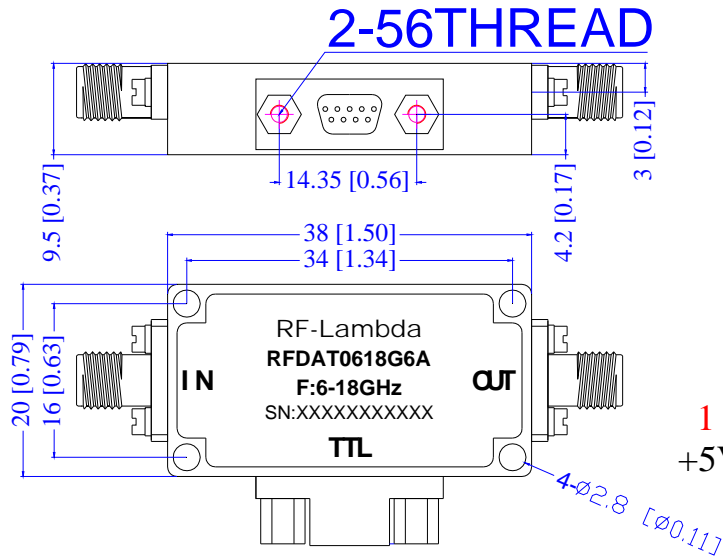






Outline Drawing:

All Dimensions in mm (inches)



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