



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB

USB / Ethernet Absorptive Digital Control Attenuator 3 - 18GHz



Note: The photo is for illustration purposes only.
Please refer to outline drawing

Features

- Wide Band Operation 3-18GHz
- USB Controlled and Powered
- Customization available upon request

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test & Measurement

Electrical Specifications, ,TA = +25°C, USB Powered

Description	PN: RFDAT0318G6AUSB			
	Absorptive Digital Attenuator			
Parameters	Min.	Typ.	Max.	Units
Frequency Range	3-18			GHz
Attenuation Range			63	dB
Attenuation Flatness: (Referenced to Insertion Loss)		±1		dB
Control Bits			6	Bit
Control Step size		1		dB
Insertion Loss			6	dB
Insertion Loss Temperature Coefficient		-		dB/°C
Input VSWR(All Atten. States)			1.5	: 1
Output VSWR (All Atten. States)			1.5	: 1
Input Power for 0.1 dB Compression		-		dBm
RF Input Power		30		dBm
IP3 Input		-		dBm
Weight	-			ounces
Impedance	50			Ω
Bias Current	210			mA
Power Supply	USB(+5.0V)			
Input /Output Connector	-			
Control Interface	USB2.0 & Ethernet(IPv4) (Control Cable Included)			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB

Ordering Information

Part No.	ECCN	Description
RFDAT0318G6AUSB	EAR99	3-18GHz Digital Control Attenuator

Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-50°C~+125°C
Thermal Shock		1 Hour@ -40°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz



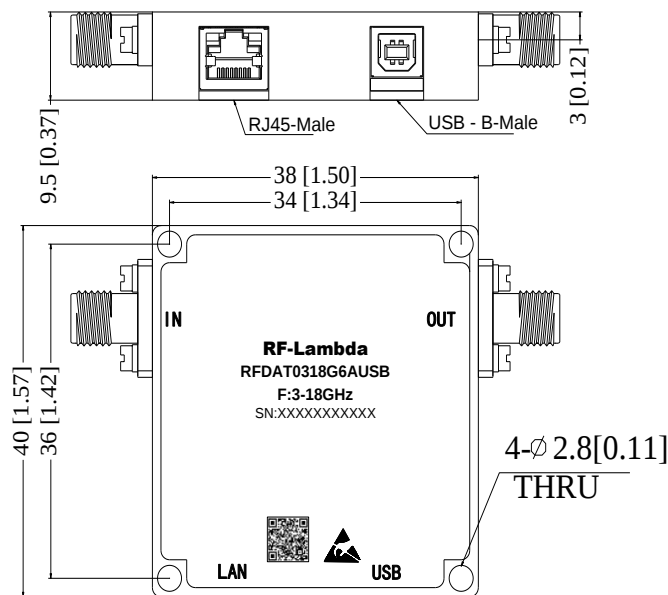
RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB

Outline Drawing:

All Dimensions in mm [inches]



Note:
Outline drawing for reference only.



USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB

USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz

Control Content Description

Format Requirement	USB (virtual serial port) Configuration	LAN Interface	Range of Parameters
a.All commands must end with a semicolon. b.All commands are case insensitive. c.Comma is used to separate multiple parameters in commands. d.All commands are suitable for USB(virtual serial port) and LAN interface.	Baud Rate :115200 Data bits : 8 Parity : None Stop bits : 1 Flow Type :None	IP address and Port. Default:192.168.1.225 :5100; use 'USB Control panel.exe' to update.	x(Step): 1~2^n,n is control bits.

Command Specification

ID	Order	Description	Return	Example
1	*IDN?;	Query product information	Product PN ,SN, Manufacturer ,version	*IDN?;
2	Reset;	Reset the product	/	Reset;
3	AT:ATT x;	Set attenuation step	Attenuation value	AT:ATT 2; Return : 2*step size
4	AT:ATT?;	Query current attenuation value	Attenuation step, attenuation value	AT:ATT? Return :2, 2*step size
5	AT:ATTS?	Query attenuation step size	Attenuation step size	AT:ATTS? Return : step size

Error Code Query

ID	Return	Description
1	E1	Missing semicolon
2	E2	Incorrect command
3	E3	Missing space character
4	E4	Out of range parameters



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB

USB Control Panel

RF-LAMBDA
THE LEADER OF RF BROADBAND SOLUTIONS

Select Device

☐ Digital Control Switch

☒ Digital Control Attenuator

☐ Digital Control Phase Shifter

Control Interface

☒ USB ¹

☐ ETHERNET

Please select a COM port **COM60** ²

Connect Device ³

The device number is: 20040700161
Device IP: 192.168.1.235:5100

Note

1. Please refer to the product manual for power supply.
2. Please refer to the product manual to configure the port.

2020.03 v2.01

USB Control Panel

RF-LAMBDA
THE LEADER OF RF BROADBAND SOLUTIONS

Control Bits **Attenuation Step(dB)**

Select the Attenuation Value(dB)

☒ OFF

Device Name: Digital Control Attenuator

Part Number: RFDAT0102G6AUSB

Serial Number: 20032600365

Control Model: USB

Control Port: COM6

Send String AT:ATT 63;

Recevie String 63.000

2020.03.02 v1.01

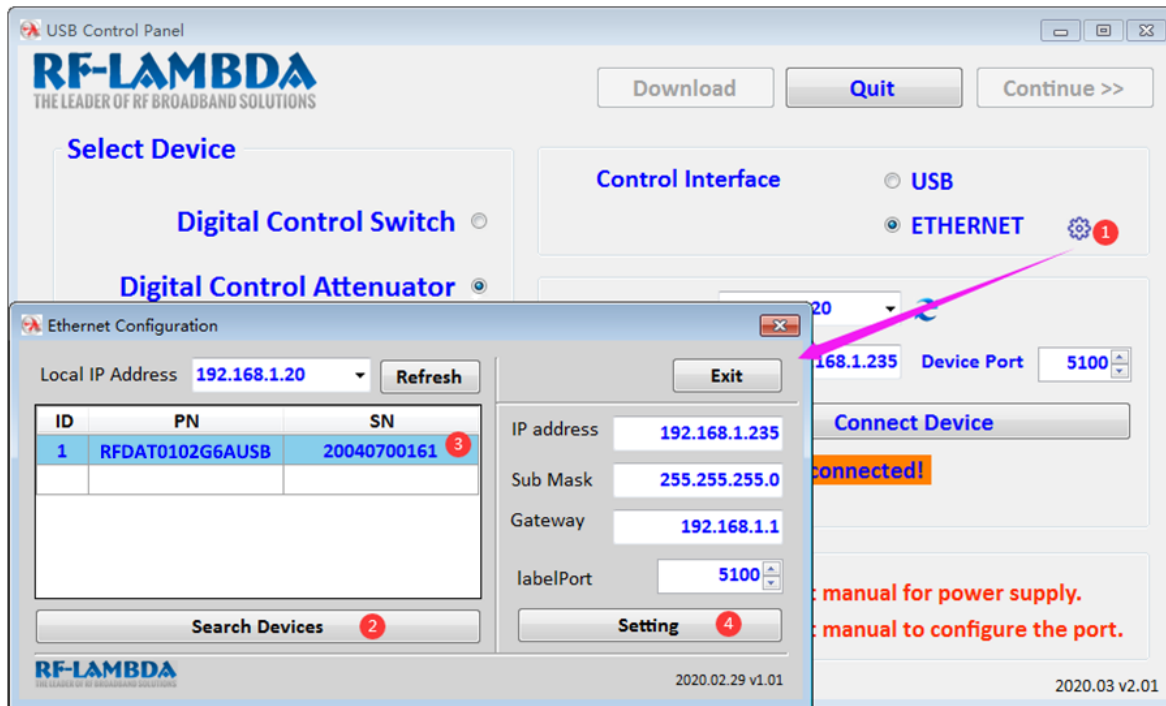
USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFDAT0318G6AUSB



USB / Ethernet Absorptive Digital Control Attenuator 3-18GHz

Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.