Absorptive Digital Control Attenuator
31 - 33GHz

RoHS Compliant

Features

- Wide Band Operation 31-33GHz
- 1dB LSB Steps to 127dB
- Single Positive Control Line Per Bit
- Customization available upon request

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

Description	PN: RFDAT3133G7A Absorptive Digital Attenuator			
Parameters	Min	Typ	Max	Units
Frequency Range	31		33	GHz
Attenuation Range			127	dB
Attenuation Flatness: (Referenced to Insertion Loss)		±1.5		dB
Control Bits			7	Bit
Control Step size		1		dB
Insertion Loss		22.5		dB
Insertion Loss Temperature Coefficient		0.005		dB/°C
Input VSWR (All States)			2.0	: 1
Output VSWR (All States)			2.0	: 1
Input 0.1 dB Compression Point		23		dBm
IP3 Input		45		dBm
Switching Speed	/			ns
Weight	1.41			ounces
Impedance	50			Ω
Bias Current (+5V/-5V)	50/50			mA
Input / Output Connectors	2.92 - Female			
Interface and Control Connector	MICRO-D15 (Female)			
Finishing	Gold Plating			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional）			

Absolute Maximum Ratings

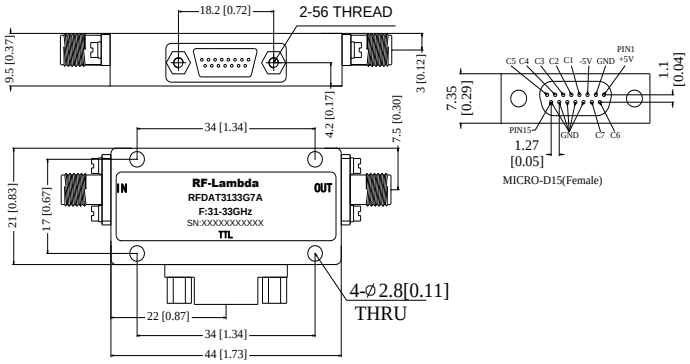
Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V / 2~5V
RF Input Power	+23dBm

Ordering Information

Part No.	ECCN	Description
RFDAT3133G7A	EAR99	31-33GHz Digital Control Attenuator

Environmental Specifications

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



Outline Drawing:

All Dimensions in mm [inches]

TruthTable

Control Voltage Input							Attenuation state
C7	C6	C5	C4	C3	C2	C1	
1	1	1	1	1	1	1	Reference IL
1	1	1	1	1	1	0	1dB
1	1	1	1	1	0	1	2dB
1	1	1	1	0	1	1	4dB
1	1	1	0	1	1	1	8dB
1	1	0	1	1	1	1	16dB
1	0	1	1	1	1	1	32dB
0	1	1	1	1	1	1	64dB
1	1	1	1	1	1	1	127dB

Important Notice