DC-18GHz Programmable & Mechanical Attenuators

Features

- High Power Handling Capability
- Low VSWR
- Excellent Temperature Stability
- Miniaturization

Typical Applications

- Wireless Infrastructure
- RF Microwave & VSAT
- Military & Aerospace
- Test Instrument
- Fiber Optics

General Description

- With excellent RF performance, RKT1G18A11 serial programmable / mechanical attenuators are used in many high frequency applications. They feature a wide frequency range, low VSWR, long life cycle, high repeatability and stability.

- Programmable versions can be controlled using a computer's interface or external instruments/circuit panels produced by RF-LAMBDA .

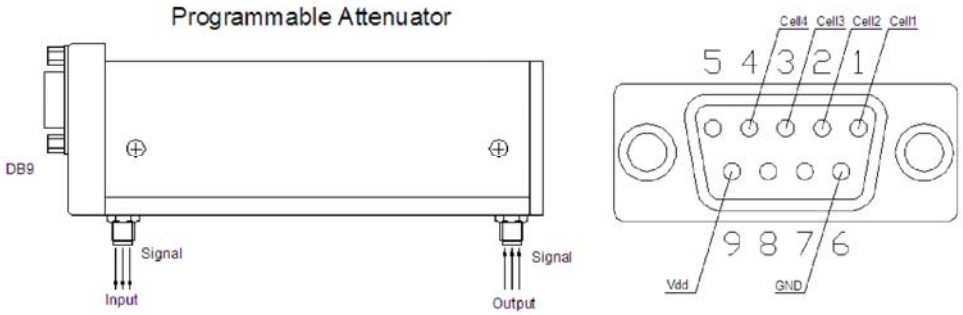
- The products are widely used in scientific research, aviation, military, broadcast, weather service and medical treatment where high frequency controlled attenuation is required.

Electrical Specifications

Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		DC		8	DC		12.4	DC		18	GHz
Attenuation Value			11			11			11		dB
Attenuation Accuracy			±0.8			±0.8			±1.0		dB
Attenuation Steps			1			1			1		dB
Cells Value			4			4			4		
Cell No.1(dB)	Through		0			0			0		
	Att.Steps		1			1			1		
Cell No.2(dB)	Through		0			0			0		
	Att.Steps		4			4			4		
Cell No.3(dB)	Through		0			0			0		
	Att.Steps		2			2			2		
Cell No.4(dB)	Through		0			0			0		
	Att.Steps		4			4			4		
VSWR				1.6			1.6			1.75	
Insertion Loss				0.6			0.6			0.6	dB
Average Power		1W (100W pulse with 10μS width)									W
Operating Voltage		24									V
Control Voltage		3.3~5V (Pulse width 50mS~1S)									V
Control current		0.02-0.8									mA
Source operation current		2			2			2			A
State switch time				20			20			20	ms
Repeatability of attenuation		0.05									dB
Working life		10^6									
Operating Temperature		-20 to +70									℃
Storage temperature		-55 to +85									℃
Size	Mechanical	157.5×50×41									mm
	Programmable	143.5×50×41.5									mm
Weight	Mechanical	12.52									ounces
	Programmable	14.81									ounces
Connector		SMA									
Control type	C	Manual									
	F	Programmabl									

Mechanical and Control Details

Input control pin high activates corresponding attenuation and low disables.



Outline Drawing:

All Dimensions in mm（inches）

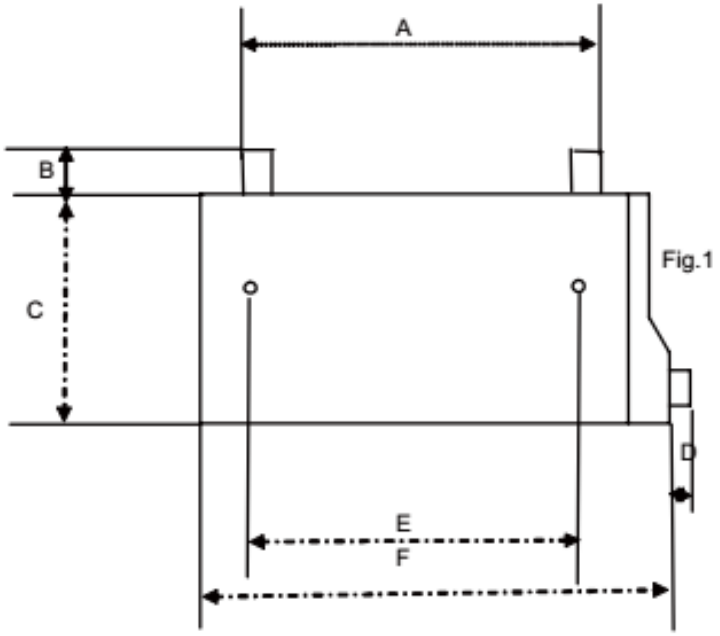


Fig.1

Table2: Outline and Installation Size of Different Model

Dimensions	A	B*	C	D	E	F
Manual 4 cells	114.4	8.3	38	29.2	103.4	135.8
Programmable 4 cells	114.4	8.3	44.3	6	103.4	135.8

B*: N type: 28, Units: (mm)

Notes:

1. Dimensions Tolerance ±2%

2. Custom designs available for other special attenuation value & accuracy