

0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator With a 1 dB Step 2.92mm Female To 2.92mm Female From 100 MHz To 40 GHz

SDA-400-030-0100-K is a 5 Bit Programmable 30 dB Pin Diode Attenuator with Step Resolution as Low as 1 dB over the Operating Frequency Range from 0.1 GHz to 40 GHz. The RF Input/Output Connectors are 2.92mm Female. Along with a 15 Pin Micro-D Female Control Socket. The unit is shipped with a Micro-D Mating Connector.

Electrical Specifications (Values at 25°C, sea level)

Description	Min	Typ	Max	Unit
Frequency Range	0.1		40	GHz
Mean Attenuation Range	0		30	dB
Insertion Loss		8		dB
Input VSWR			2.5:1	
Input at P1dB		+20		dBm
Power Handling Capacity			+24	dBm
Accuracy of Attenuation				
0 dB to 30 dB		±2.5		dB
Step Size	1			dB
Switching Time				
On Time			1	µs
Off Time			0.5	µs
DC Power Supply 50 mA		15		Volts
Logic Input				
Logic "0" (Bit Off)	0		0.8	Volts
Logic "1" (Bit On)	2		5	Volts

Mechanical Specifications

Size	
Length	2 in [50.8 mm]
Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.2 lbs [90.72 g]
Connector 1	2.92mm Female
Connector 2	2.92mm Female

Environmental Specifications

Temperature	
Operating Range	-50 to +85 deg C
Storage Range	-65 to +125 deg C
Humidity	MIL-STD-202F, METHOD 103B COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B
Altitude	MIL-STD-202F, METHOD 105C COND. B
Temperature Cycle	MIL-STD-202F, METHOD 107



Features:

- 5 Bit Programmable 30 dB Pin Diode Attenuator
- 0.1 GHz to 40 GHz Frequency Range
- 30 dB Attenuation Range
- Step Resolution of 1 dB
- Insertion Loss 8 dB Typ
- RF Connectors are 2.92mm Female
- 15 Pin Micro-D Female Connector

Applications:

- Electronic Warfare
- Test & Measurement
- Military & Space
- Radar
- Military Communications Systems

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Compliance Certifications (visit www.FairviewMicrowave.com for current document)
 Not RoHS Compliant

Plotted and Other Data

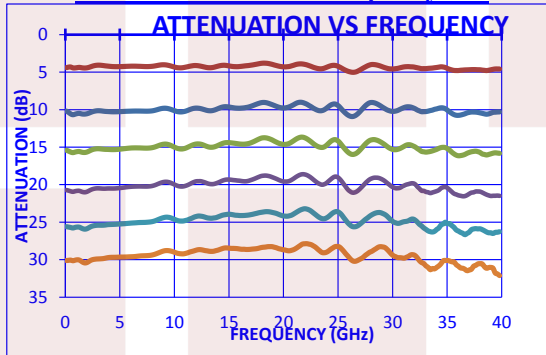
Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

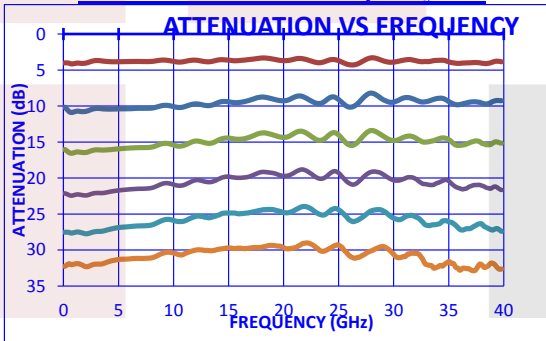


Typical Performance Data

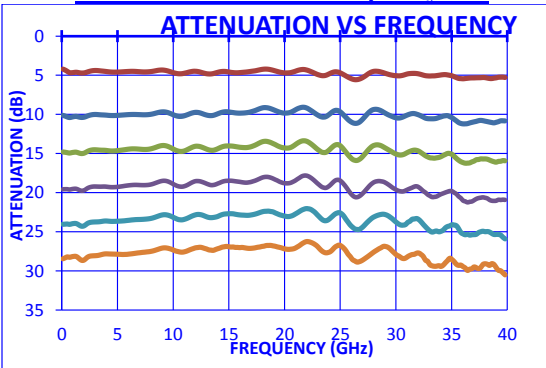
+25°C Attenuation vs. Frequency Plot



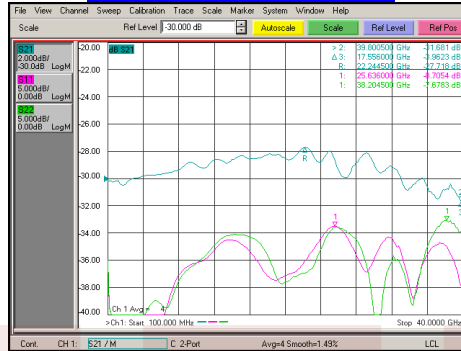
-40°C Attenuation vs. Frequency Plot



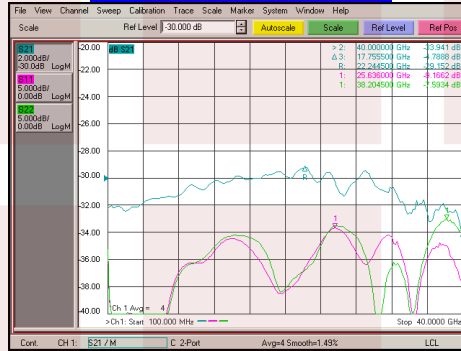
+85°C Attenuation vs. Frequency Plot



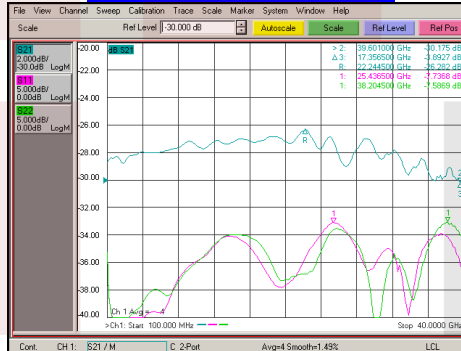
+25°C @ -30dB Attenuation



-40°C @ -30dB Attenuation



+85°C @ -30dB Attenuation



+25°C Insertion Loss & Return Loss



-40°C Insertion Loss & Return Loss



+85°C Insertion Loss & Return Loss



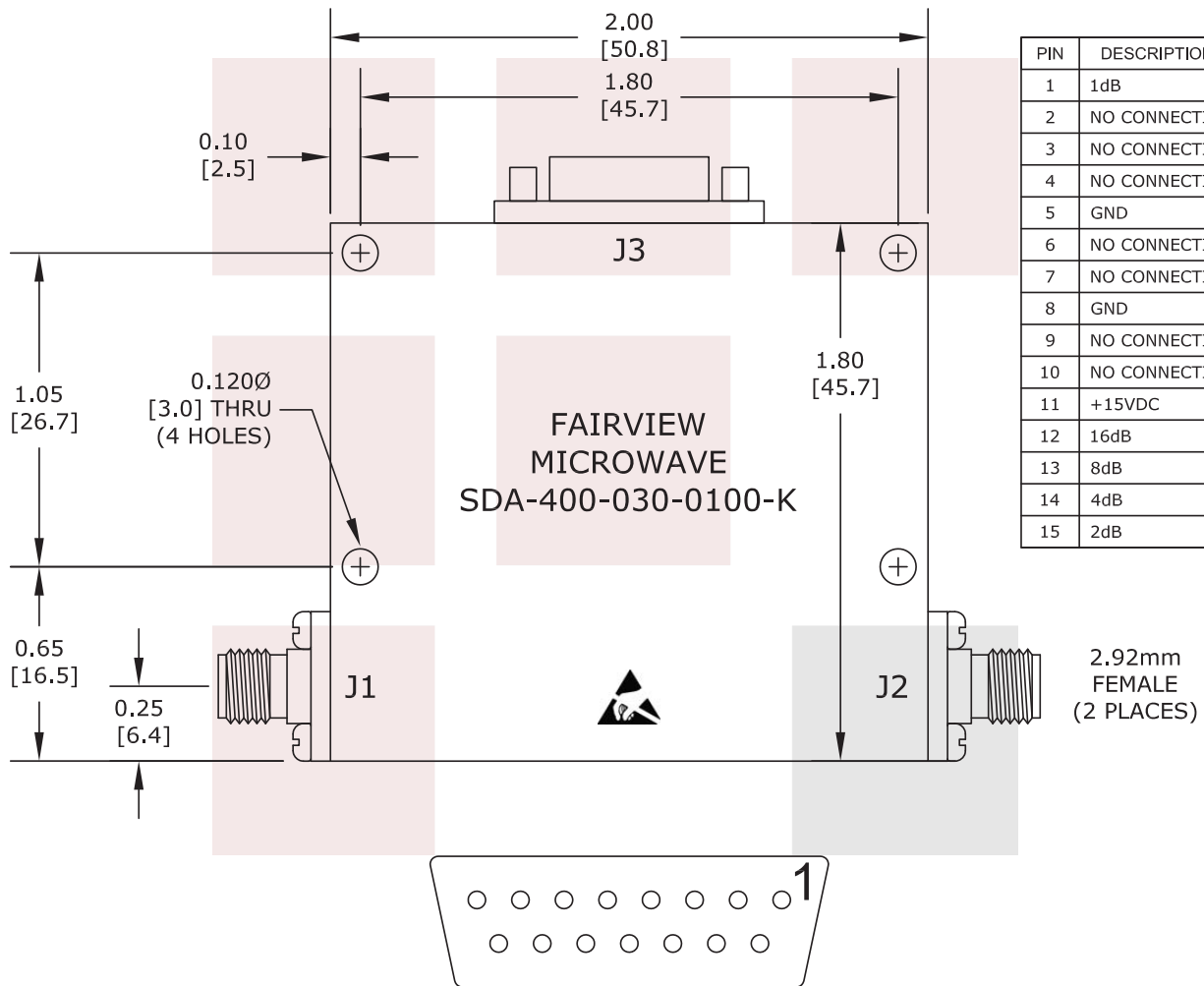
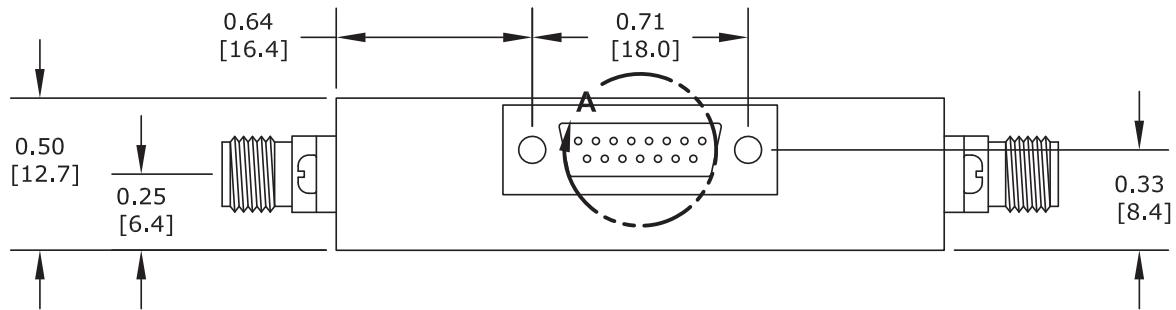
0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator With a 1 dB Step 2.92mm Female To 2.92mm Female From 100 MHz To 40 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator With a 1 dB Step 2.92mm Female To 2.92mm Female From 100 MHz To 40 GHz SDA-400-030-0100-K](#)

URL: <http://www.fairviewmicrowave.com/30-db-programmable-step-attenuator-2.92mm-female-sda-400-030-0100-k-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





PIN	DESCRIPTION
1	1dB
2	NO CONNECTION
3	NO CONNECTION
4	NO CONNECTION
5	GND
6	NO CONNECTION
7	NO CONNECTION
8	GND
9	NO CONNECTION
10	NO CONNECTION
11	+15VDC
12	16dB
13	8dB
14	4dB
15	2dB

View A

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm].			
TITLE 0 to 30 dB 5 Bit Programmable TTL Controlled Step Attenuator With a 1 dB Step 2.92mm Female To 2.92mm Female From 100 MHz To 40 GHz		DWG NO SDA-400-030-0100-K	CAGE CODE 3FKR5		
CAD FILE	111114	SHEET	SCALE	N/A	SIZE A 2233