Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

Features

- Analog Controlled 60 dB Pin Diode Attenuator
- 2 GHz to 4 GHz Frequency Range
- Insertion Loss 2.0 dB Max
- VSWR 2.0:1 Max
- Input Power 20 dBm Operating
- Input Power 30 dBm Survival
- Switching Time 500 nsec
- Removable SMA Female Connectors
- 15 Pin Micro D Control Connector

Applications

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

Description

SAA-0204-060-SMA is an Analog Controlled 60 dB Pin Diode Attenuator operating from 2 GHz to 4 GHz, and over a temperature range of -55 Deg C to + 85 Deg C. The Input/Output RF Connectors are Removable SMA Female. The control connector is a 15 Pin Micro D, with a mating connector supplied.

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		4	GHz
Attenuation Range	0		60	dB
			2	dB
VSWR			2:1	
Input at 0.1 dB Compression Point		+20		dBm
Survival Power Rating			+30	dBm
		±0.45		dB
		±0.8		dB
		±1.5		dB
		±1.6		dB
Switching Time			500	ns
Switching Speed			500	ns
Analog Control		10		dB/Volt
Control Voltage			6	Volts
DC Power Supply				
12 to 15 VDC			125	mA
-12 to -15 VDC			50	mA
Attenuation Range	0		60	dB

Mechanical Specifications

Size

Length	2 in [50.8 mm]

+1 (866) 839-4711 | sales@fairviewmicrowave.com | fairviewmicrowave.com

Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

Width	1.8 in [45.72 mm]
Height	0.5 in [12.7 mm]
Weight	0.166 lbs [75.3 g]
Input Connector	SMA Female
Output Connector	SMA Female
Power and Control	15-Pin D-Subminiatur

Environmental Specifications

Temperature	
Operating Range	-55 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
Salt Spray	MIL-STD-202F, METHOD 105C COND. B

Compliance Certifications (see product page for current document)

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.

+1 (866) 839-4711 | sales@fairviewmicrowave.com | fairviewmicrowave.com

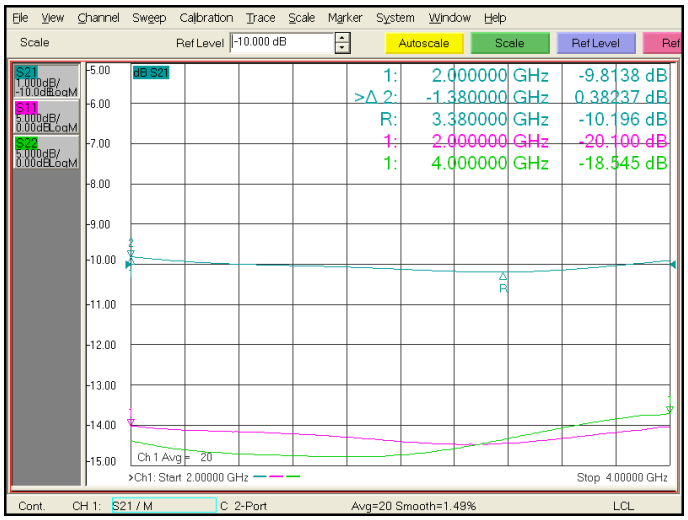
Voltage Variable PIN Diode Attenuator from 0 to 60 dB
2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

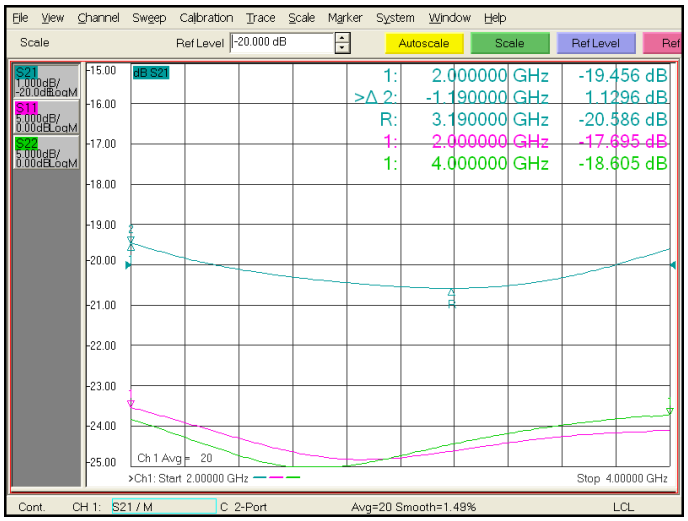
Functional Block Diagram

Performance Data

10dB Attenuation



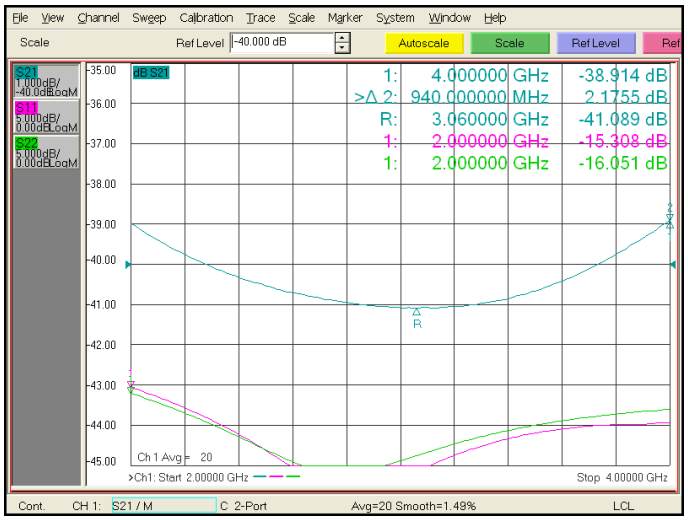
20dB Attenuation



Voltage Variable PIN Diode Attenuator from 0 to 60 dB
2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

40dB Attenuation

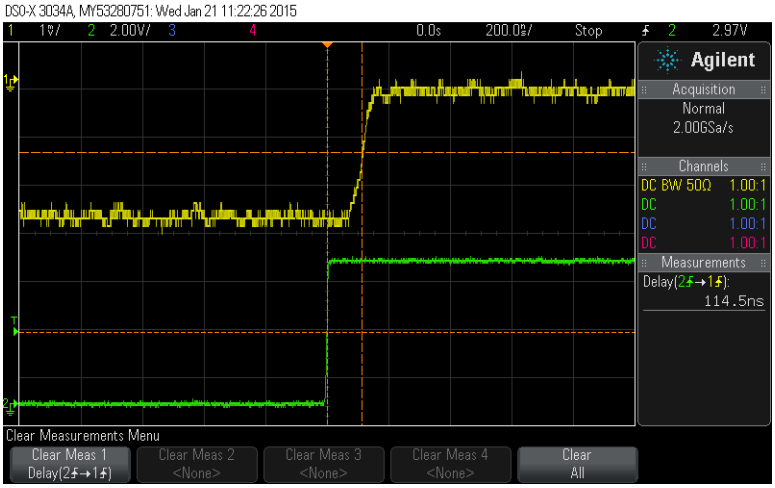


60dB Attenuation

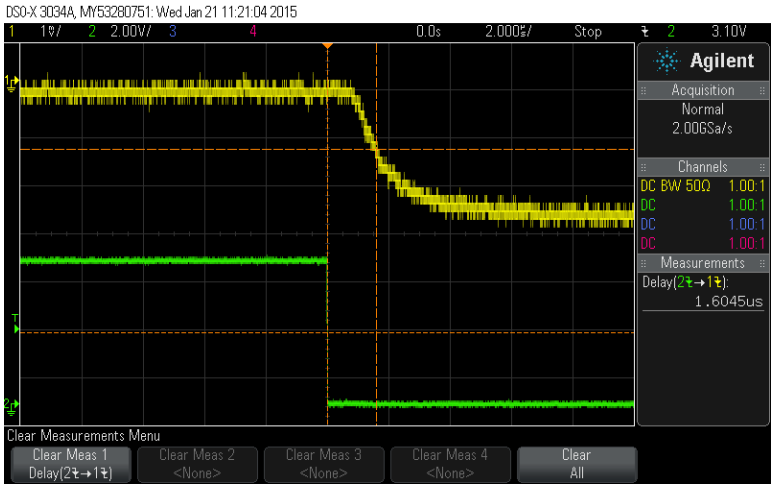
Voltage Variable PIN Diode Attenuator from 0 to 60 dB
2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

Delay 0 to 60 dB



Delay 60 to 0 dB



Channel 1 (Yellow): RF output
Channel 2 (Green): TTL Input from Signal Generator

Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control

SAA-0204-060-SMA

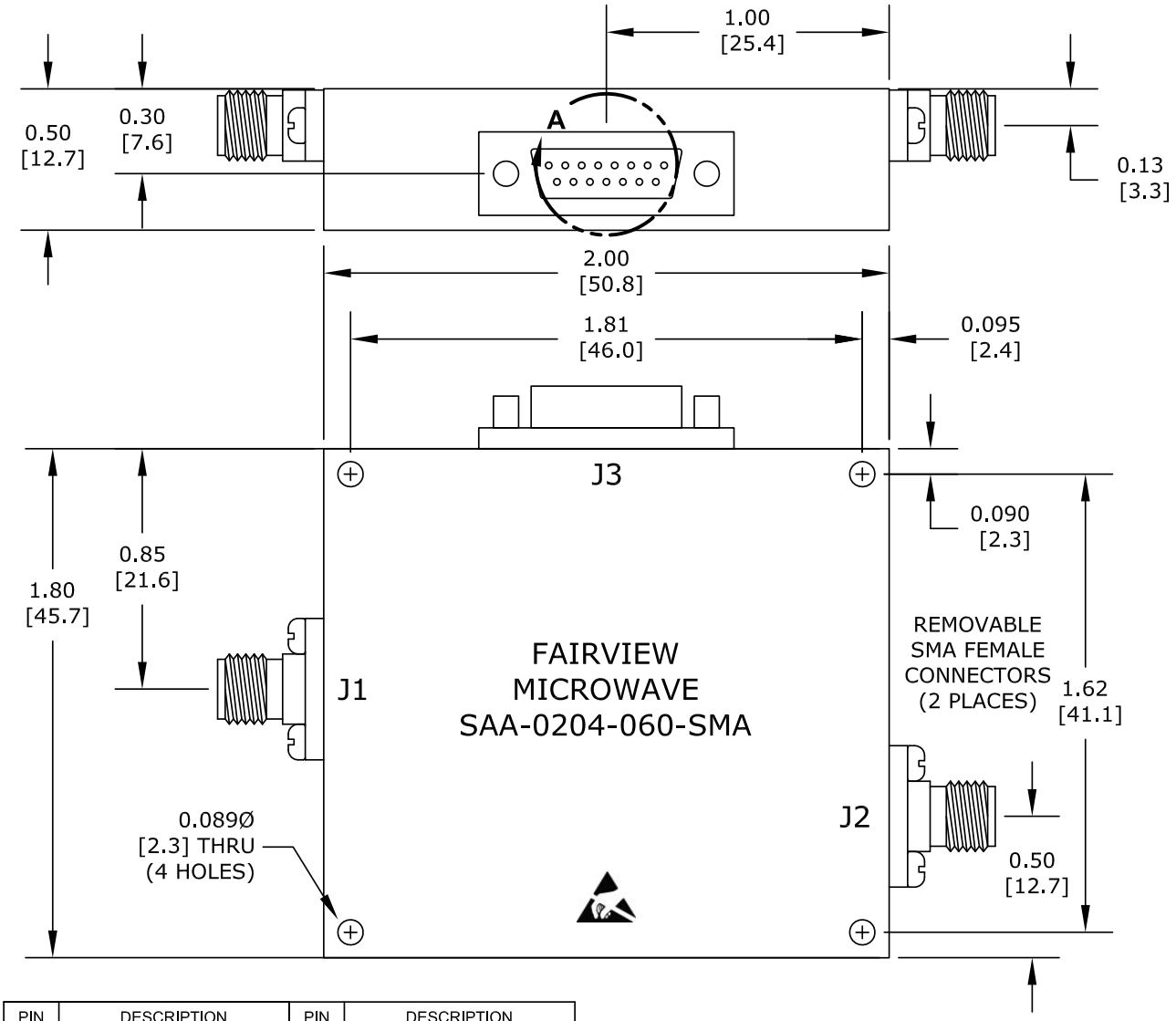
Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control SAA-0204-060-SMA

URL: https://www.fairviewmicrowave.com/60db-voltage-variable-attenuator-pin-diode-4-ghz-saa-0204-060-sma-p.aspx

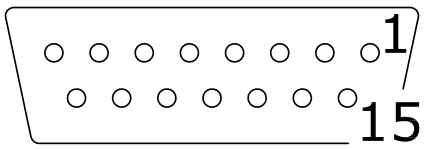
SAA-0204-060-SMA CAD Drawing

Voltage Variable PIN Diode Attenuator from 0 to 60 dB 2 GHz to 4 GHz and SMA 15-Pin D-Subminiature Control



PIN	DESCRIPTION	PIN	DESCRIPTION
1	NO CONNECTION	9	NO CONNECTION
2	NO CONNECTION	10	NO CONNECTION
3	ANALOG INPUT	11	NO CONNECTION
4	GROUND	12	NO CONNECTION
5	NO CONNECTION	13	+12 OR +15 VDC
6	NO CONNECTION	14	-12 OR -15 VDC
7	NO CONNECTION	15	NO CONNECTION
8	NO CONNECTION		

15 PIN MICRO-D FEMALE
(MATING CONNECTOR SUPPLIED)



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	DWG NO SAA-0204-060-SMA		CAGE CODE 3FKR5		
	CAD FILE 051815	SHEET	SCALE N/A	SIZE A	2233