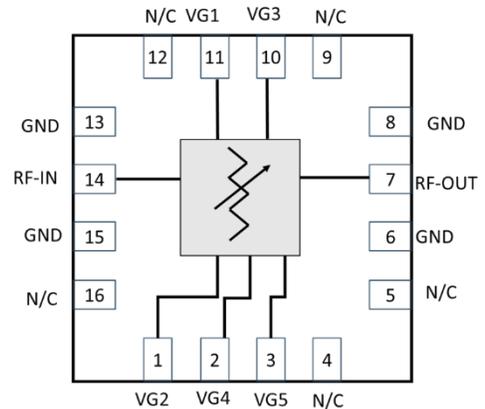


Features:

- RF Frequency: DC-32 GHz
- Attenuation: 0 dB to 9 dB
- Input Return Loss: 15dB+
- Output Return Loss: 12dB+
- Control voltage: 4V / -4V
- 0.1um GaAs pHEMT Technology
- Die Size: 0.9 mm*1.45 mm

Functional Block Diagram



Description:

RFDVA07 is Digital Variable Attenuator operates from DC-32 GHz and it is used to drive the Lowest insertion loss Attenuator. The Attenuator provides Insertion Loss at 0 dB, 3 dB, 6 dB, 9 dB the input and output are matched to 50 ohms with on-chip DC blocking capacitors.

The device is specifically designed for use in DC-32 GHz frequency in Bluetooth, Zigbee, WiFi, IoT and SATCOM Application.

The Technology used to design Digital Variable Attenuator is 0.1um GaAs pHEMT Process.

Pin Configuration

Pin No.	Pin Name	Description
6,8,13,15	GND	Ground
11	VG1	Control Voltage
1	VG2	Control Voltage
10	VG3	Control Voltage
2	VG4	Bias Voltage
3	VG5	Bias Voltage
4,5,9,13,16	N/C	Not Connected
14	RF-IN	RF Input
7	RF-Out	RF Out put

Applications:

- RF and Microwave Test Setup
- Wireless Sensing and Imaging System
- Software Defined Radio(SDR) System
- Power Sweeping

Deliverables:

- Sample Ready Die
- Product Datasheet

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Electrical Specification:

Freq= DC – 32 GHz, VCC = 4V/-4V, Zo=50Ω

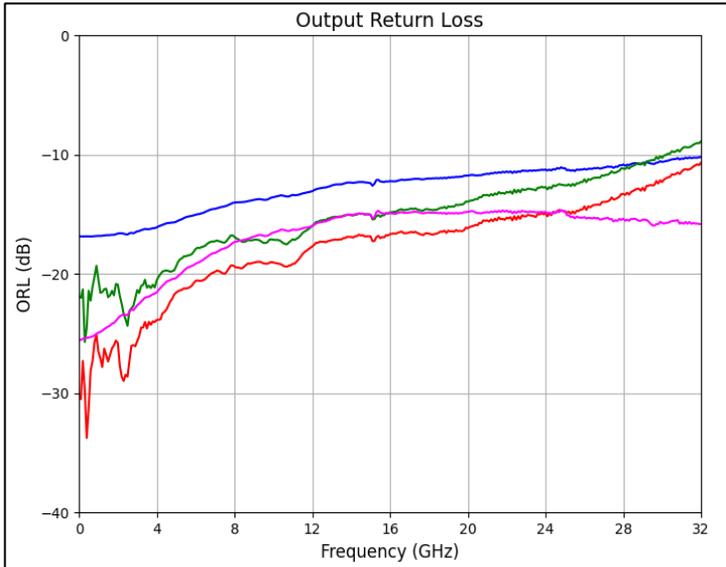
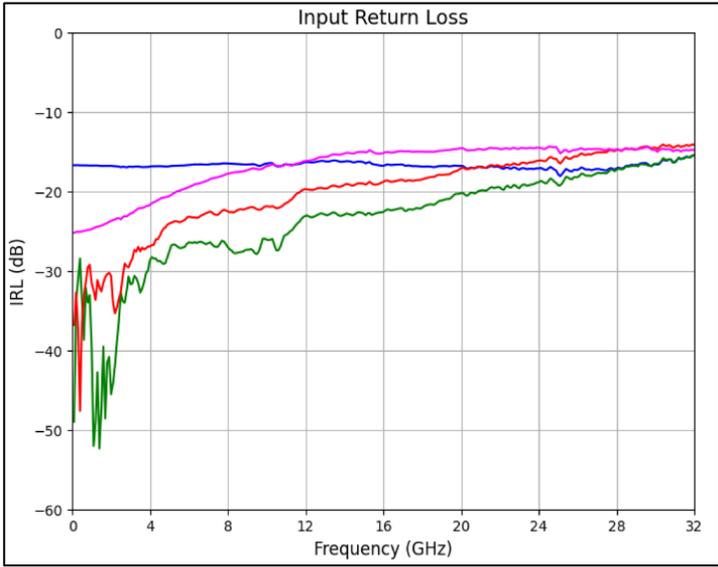
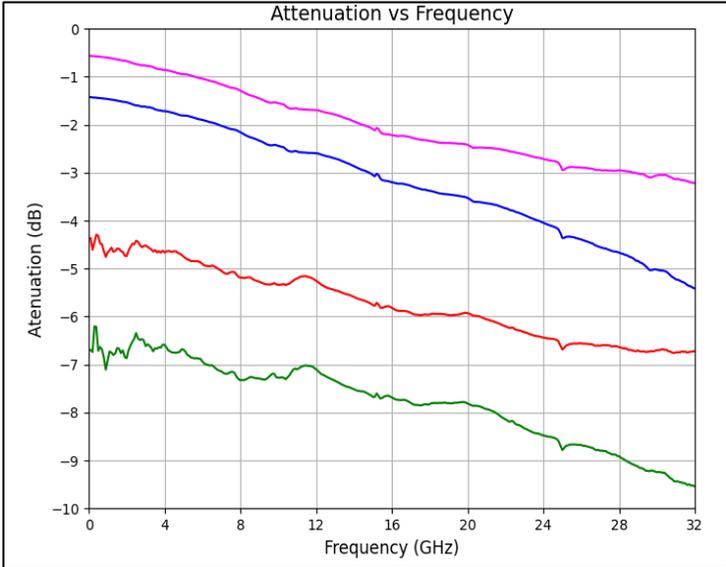
Parameters	Frequency	Units	Typ
Attenuation	16 GHz	dB	2.22
			3.20
			5.82
			7.69
Input Return Loss	16 GHz	dB	15.14
			16.74
			18.77
			22.55
Output Return Loss	16 GHz	dB	14.90
			12.22
			6.67
			14.85
OIP3	4 GHz	dBm	42
IIP3	4 GHz	dBm	50
Drain Current (Id)	-	mA	—
Control Voltage (VCC)	-	V	4 / -4
Gate Voltage (VGG)	-	V	-

Digital Variable Attenuator

PRODUCT DATASHEET

On Wafer Testing Performance Curves:

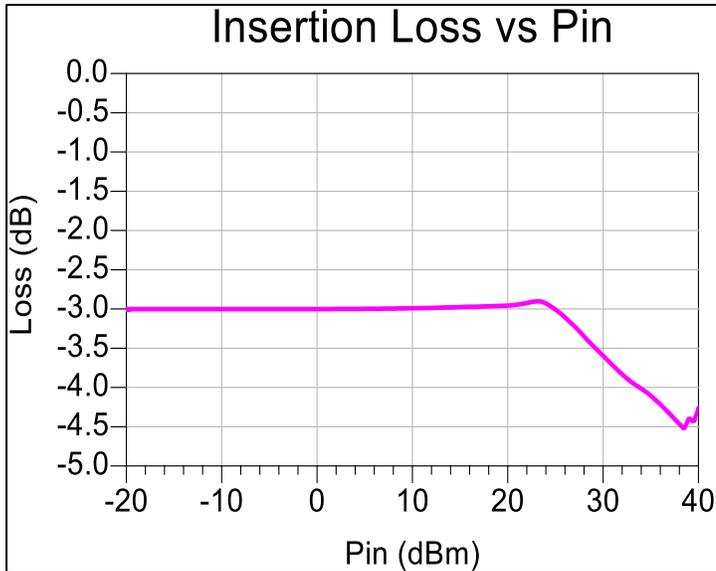
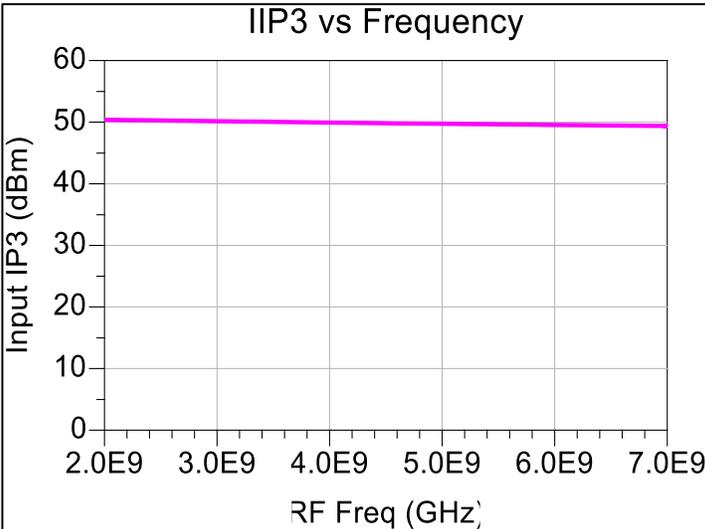
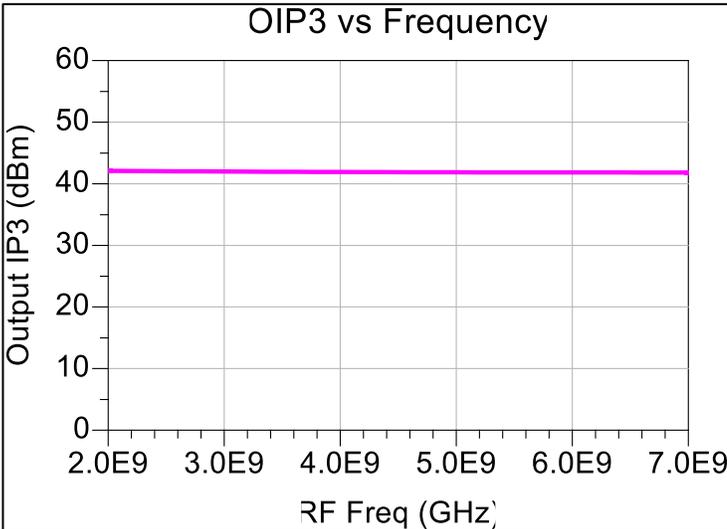
0 dB 3 dB 6 dB 9 dB



Digital Variable Attenuator

PRODUCT DATASHEET

Typical Performance Curves:

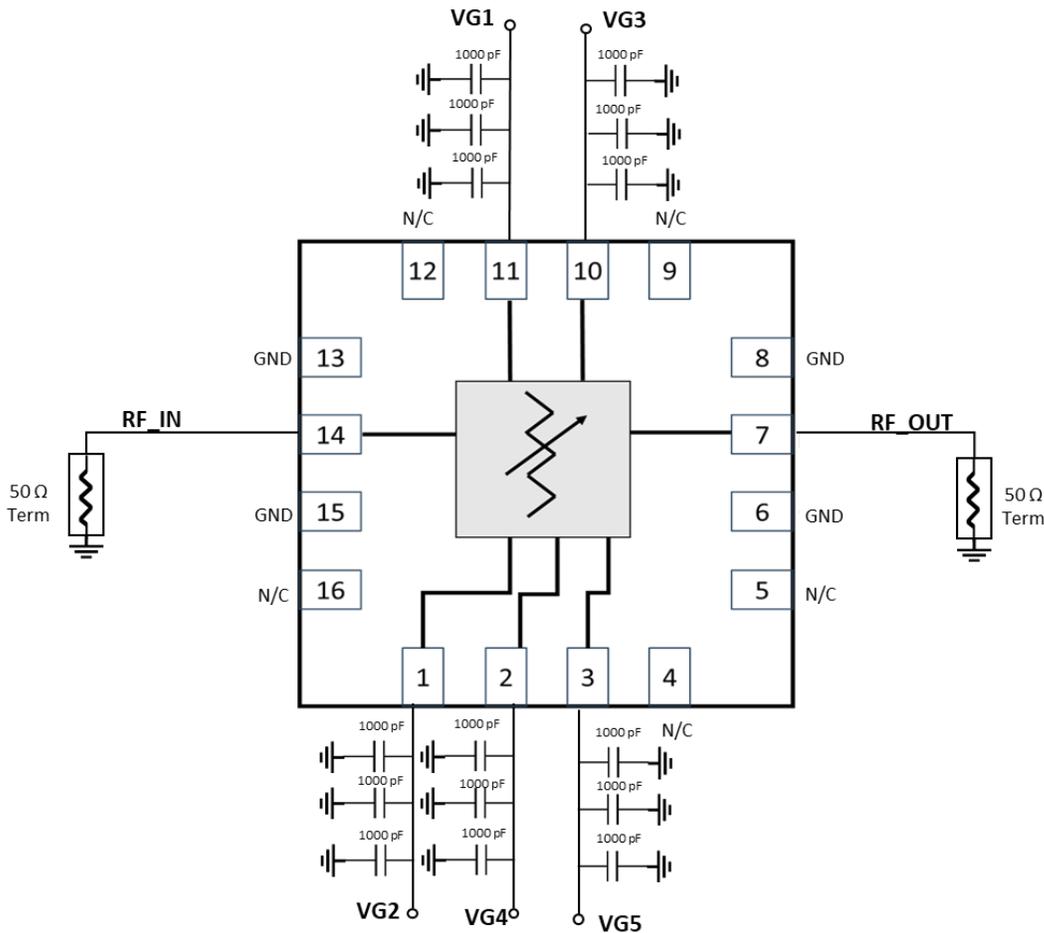


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Digital Variable Attenuator

PRODUCT DATASHEET

Application Diagram:



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Contact information

For the latest specifications, additional product information:

Web: www.rficsolutions.com

Email: smoghe@rficsolutions.com

Tel: (+91) 840 356 8957, (+91)9022078131, (+91)8485841789