Coaxial

Gain Block Amplifier (GBA) GBADC12G

50Ω DC to 12 GHz Gain Block

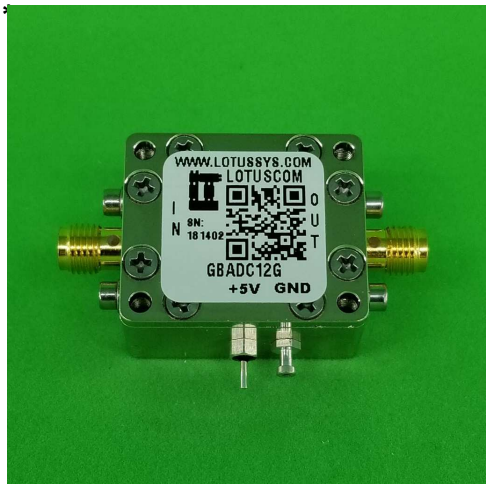
Case PN: 6UED2W6S1A2

Features:

* **Frequency Range: DC to 12GHz;**
* **16dB Gain, +15dBm P1dB at 2GHz**
* **Noise Figure: typical 4.3 dB @ 3GHz**
* **Output IP3: +28 dBm at 2GHz**
* **DC Voltage: +5V**
* **Operating Current: 60 mA**
* **Stainless Steel SMA Female Connector**
* **High Quality Isola-Tera RF PCB**
  (very low loss and high thermal performance)
* **ROHS Compliant**

Applications:

* **Repeaters/DAS**
* **Mobile Infrastructure**
* **LTE/WCDMA/CDMA/GSM**
* **General Purpose Wireless**
* **SDR & Ham Radio**



Product Overview:

GBADC12G is a 16dB linear amplifier in a small 1-1/8”x15/16”x0.59” shielded RF enclosure (PN: 6UED2W6S1A2). At 2 GHz, the amplifier typically provides 16 dB gain, +28 dBm OIP3 at a 60 mA bias setting, and 4.3 dB noise figure. The Gain Block can be biased from a single supply +5V.

Electrical Specifications:

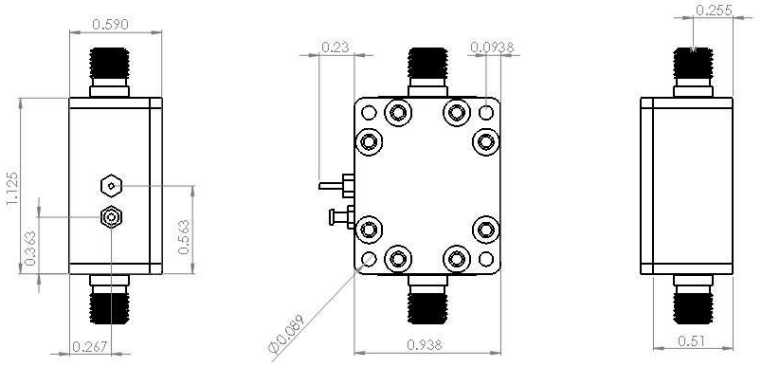
Item	Parameter	Conditions	Min	Typ	Max	Units
1	Operational Frequency Range		DC		12000	MHz
2	Small Signal Gain, S21	f=0.1GHz to 1.0GHz	15.5	16.7		dB
		f=1.0GHz to 4.0GHz		16.5		dB
		f=4.0GHz to 6.0GHz		16.0		dB
		f=6.0GHz to 8.0GHz	12.5	13.5		dB
		f=8.0GHz to 12.0GHz		10		dB
3	Input Return Loss			20		dB
4	Output Return Loss			15		dB
5	Noise Figure	f=3.0GHz	--	4.3	--	dB
6	Output P1dB	f=2.0GHz		+15		dBm
7	Output IP3	f=2.0GHz		+28		dBm
8	Current, I_{DD}			60		mA

Test Conditions: V_{DD}=+5V, I_{dd} = 60 mA (typ.) Temp = +25 °C, 50Ω system.

Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+6.5	V
2	Max RF input Power	+20	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C

Outline Drawing (inch)



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