

**50Ω 20 MHz to 1.0 GHz Gain Block**

Case PN: 6UED2W6S1A2

**Features:**

- \* Fixed Gain of 15 dB
- \* Frequency Range: 20 MHz to 1 GHz;
- \* Noise Figure: typical 3.2 dB @ 380MHz
- \* Output P1dB: +18.9 dBm CW at 190MHz
- \* Output IP3: +45.5 dBm at 380MHz
- \* DC Voltage: +5V
- \* Operating Current: 97 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
- \* Test Instrumentation

**Product Overview:**

GBA20M1G is a 15dB linear amplifier in a small 1-1/8"x15/16"x0.59" shielded RF enclosure (PN: 6UED2W6S1A2). At 900 MHz, the amplifier typically provides 15 dB gain, +45 dBm OIP3 at a 97 mA bias setting, and 3.2 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		20		1000	MHz
2	Test Frequency			380		MHz
3	Gain		14	15	16	dB
4	Input Return Loss			15		dB
5	Output Return Loss			15		dB
6	Noise Figure		--	3.3	--	dB
7	Output P1dB			+18.9		dBm
8	Output IP3	Pout =+3 dBm/tone, Δf =1 MHz		+45.5		dBm
9	Current, I <sub>DD</sub>			97	115	mA

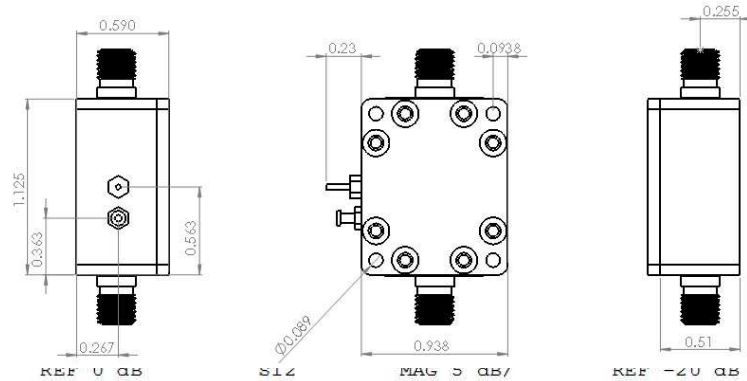
Test Conditions: V<sub>DD</sub>=+5V, I<sub>dd</sub> = 70 mA (typ.) Temp = +25 °C, 50Ω system.

**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)



S-Parameters

