

## 50Ω Gain Block MMIC Amplifier 7 - 15 GHz

Case PN: 6UDD2W6S1A2

## Features:

- \* Frequency Range: 7G to 15 GHz;
- \* High Output IP3: +28 dBm
- \* Low Noise Figure: typical 4.0 dB
- \* 15dB Gain, +15dBm P1dB
- \* Single DC Voltage: +5V
- \* Operating Current: 45 mA
- \* Stainless Steel SMA Female Connector
- \* High Quality Rogers RO4350 RF PCB  
(very low loss and high thermal performance)
- \* ROHS Compliant

## Applications:

- \* Cellular/PCS
- \* Mobile Infrastructure
- \* CATV, Cable Modem & DBS
- \* General Purpose Wireless
- \* SDR & Ham Radio

## Product Overview:

GBA7G15G is a HBT Gain Block MMIC Amplifier covering 7 GHz to 15 GHz in a small 15/16"x15/16"x0.59" shielded RF enclosure (PN: 6UDD2W6S1A2). This amplifier can be used as a cascadable IF or RF gain stage in 50 Ohm applications. It delivers 15 dB gain, and +15dBm output P1dB with only 4 dB noise figure. The Gain Block can be biased from a single supply +5V.



## Electrical Specifications:

Item	Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
1	Frequency Range	7 – 9			9 – 14			14 – 15			GHz
2	Gain (S21)	10.5	14		12	15		12	15		dB
3	Gain Variation Over Temp.		0.016			0.016			0.022		dB/°C
3	Input Return Loss		14			15			11		dB
4	Output Return Loss		8			8			7		dB
5	Noise Figure		6			4			4		dB
6	Output P1dB	13	16		12	15		10.5	13.5		dBm
7	Output IP3		26			28			26		dBm
8	Current, I <sub>DD</sub>		45	60		45	60		45	60	60

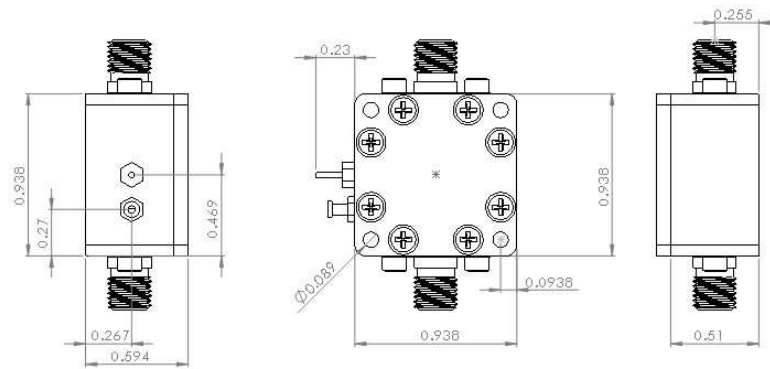
Test Conditions: V<sub>DD</sub>=+5V, I<sub>dd</sub> = 60 mA (typ.) Temp = +25 °C, 50Ω system.

## Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+6	V
2	Max RF input Power	+12	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C



Outline Drawing (inch)



S-Parameters

