

## 50Ω (match on input &amp; output) Broadband 5G to 20G Hz

Case PN: 6UDD2W6S1A2

## Features:

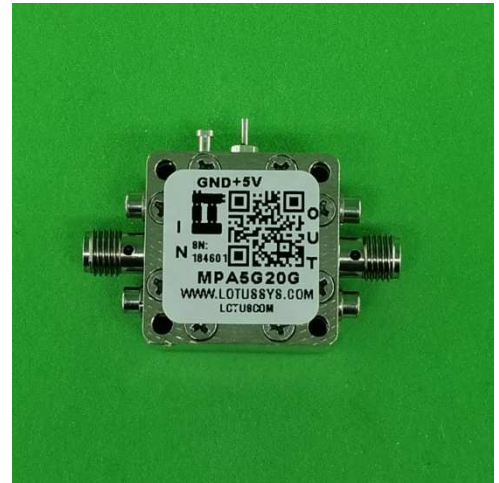
- \* Frequency Range: 5 GHz to 20 GHz;
- \* Noise Figure: typical 6.5dB @ 10 GHz
- \* Gain: typical 20 dB @ 10 GHz
- \* Output P1dB: 19.5 dBm typ.
- \* Output IP3: 30 dBm typ.
- \* DC Voltage: +5V
- \* Operating Current: 114mA
- \* Stainless Steel SMA Female Connector
- \* High Quality Rogers RO4350 RF PCB
- \* ROHS Compliant

## Applications:

- \* Test Instrumentation
- \* Wideband A/D System
- \* General Purpose Wireless
- \* Radar & VSAT
- \* SDR & Ham Radio

## General Description:

MPA5G20G is an efficient GaAs MMIC broadband, median power amplifier with 19 dB typical gain from 5 to 20 GHz in a small 15/16"x15/16"x0.59" shielded RF enclosure (PN: 6UDD2W6S1A2). The saturated power is +21 dBm and 21% PAE from a single +5V supply. Third order linearity (OIP3) is typically 30 dBm. It has excellent Gain flatness.



## Electrical Specifications:

Item	Parameter	Min	Typ	Max	Min	Typ	Max	Units
1	Operational Freq.	5 - 15			15 - 20			GHz
2	Gain	16	19		15	18		dB
3	Input Return Loss		13			12		dB
4	Output Return Loss		12			8		dB
5	Noise Figure		6.5			7		dB
6	Output P1dB	16.5	19.5		16	19.5		dBm
7	Output IP3		32			29		dBm
8	Current, I <sub>DD</sub>		114			114		mA

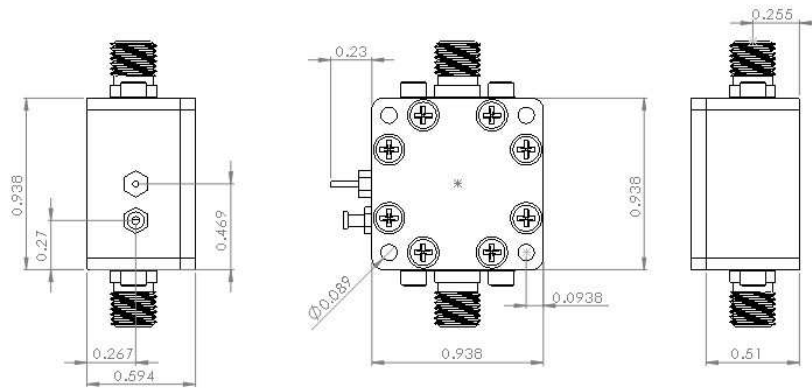
Test Conditions: V<sub>DD</sub>=+5V, Temp = +25 °C, 50Ω system.

## Absolute Maximum Ratings

Item	Parameter	Rating	UNITS
1	Max Device Voltage	+5.5	V
2	Max RF input Power	+10	dBm
3	Operating Temperature	-40 to +85	°C
4	Max Storage Temperature	-65 to +150	°C

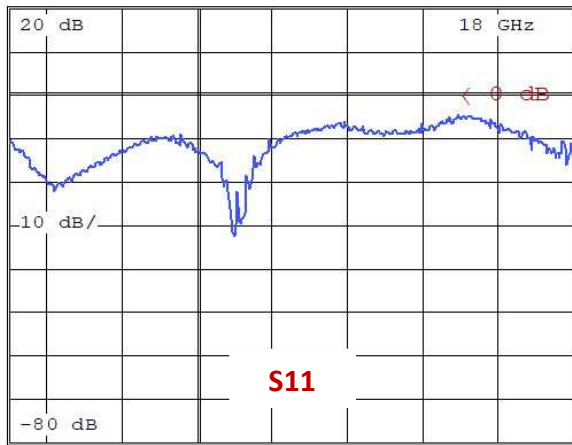


Outline Drawing (inch)



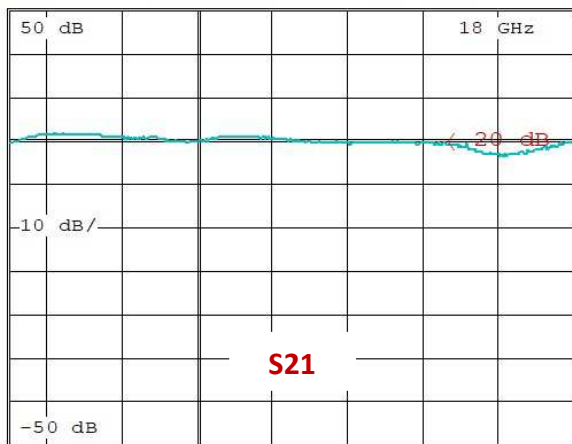
S-Parameters

S11 MAG 10 dB/



CAI

S21 MAG 10 dB/ REF 20 dB



S22 MAG 10 dB/ REF 0 dB



CPL

FIL 10k

START 5 GHz

2 GHz/

STOP 20 GHz

