

Product Features

- 50 – 1000 MHz
- +25 dBm P-1dB
- +43 dBm Output IP3
- +76dBm Output IP2
- +5V Single Power Supply
- Matched amplifiers for Push-Pull operation.
- 3x3 mm DFN8
Lead-Free/green package
- Available as bare die

Applications

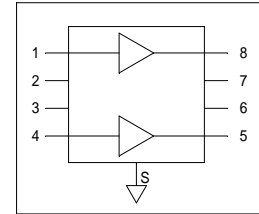
- CATV Head End Equipment
- CATV Line Amplifiers
- FTTH Repeaters

Product Description

The GSF501-30 is a High Performance Amplifier that targets the cable TV market. The amplifier is designed with a slight gain upslope to help compensate for cable losses in the system.

The GSF501-30 is a pair of matched devices and is ideal for Push-Pull operation to achieve high second order linearity. A reliable GaAs HFET technology is used to maximize linearity at low power dissipation. It is in a lead free/green RoHS compliant 3x3mm DFN Surface Mount Transistor package.

Package

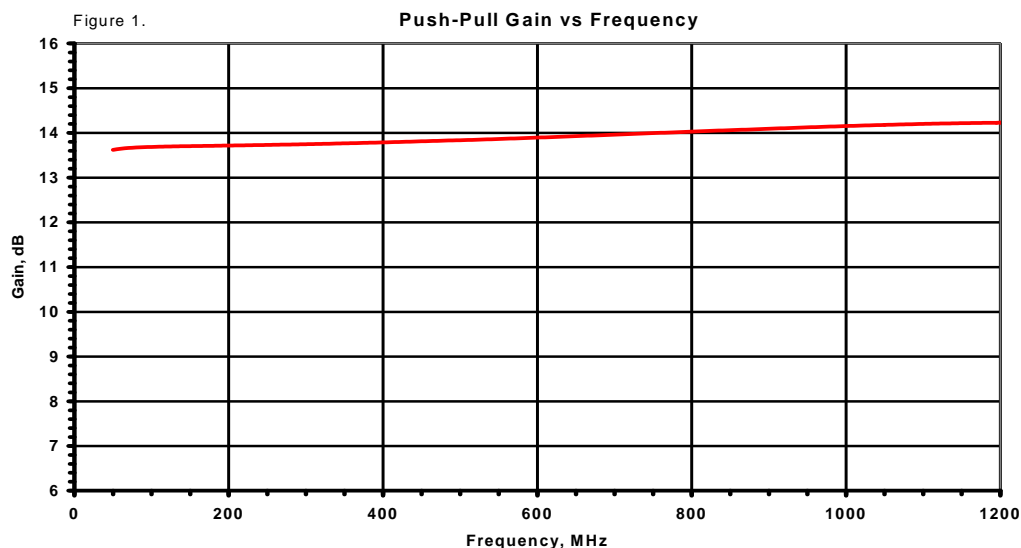


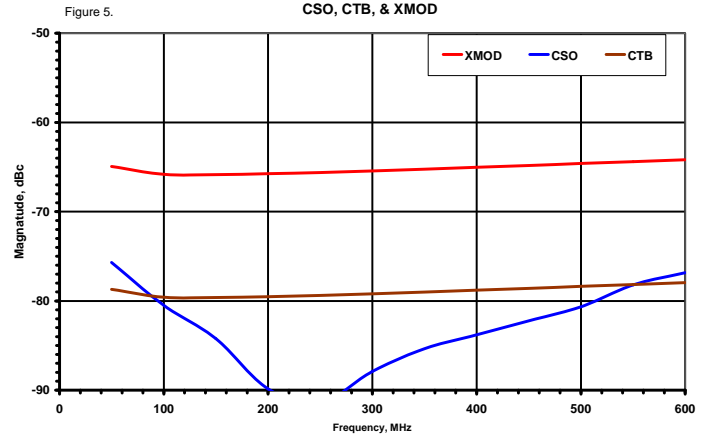
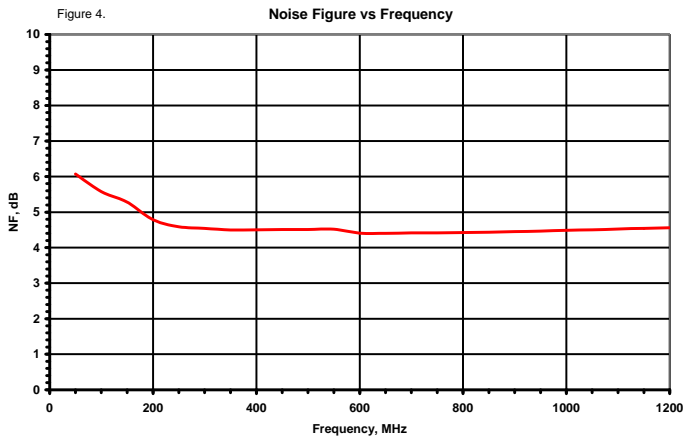
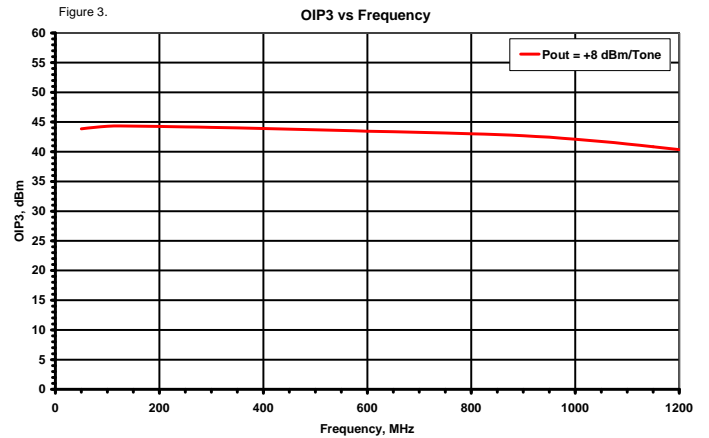
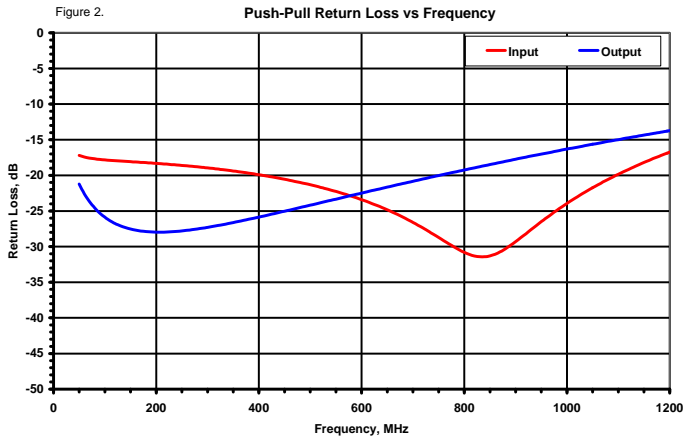
Function	Pin No.
Amp 1 Input	1
Amp 2 Input	4
Amp 2 Output	5
Amp 1 Output	8
Ground	2,3,6,7,S

Specifications (1)

Parameter	Units	Min	Typ	Max
Operational Bandwidth	MHz	50		1200
Test Frequency	MHz		800	
Gain	dB	14	15	
Pout @ -1dB GCP	dBm		+25	
Output IP3	dBm		41	
Device Voltage	V		5	
Operating Current	mA	130	160	180

1. Test conditions unless otherwise specified: 25°C, Supply Voltage = +5.00V, 800MHz on each individual single branch amplifier in a 37.5Ω test fixture

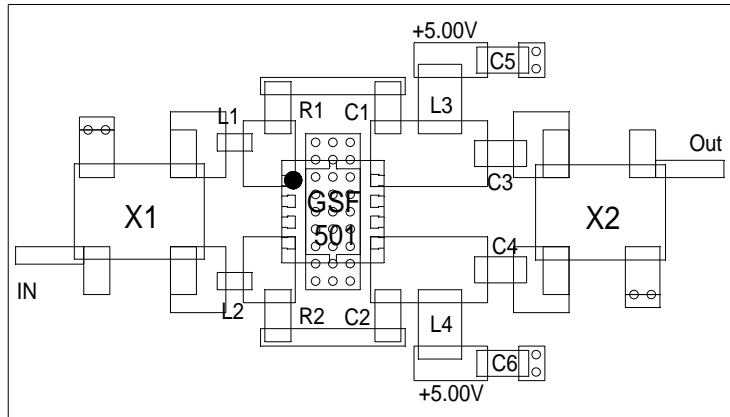




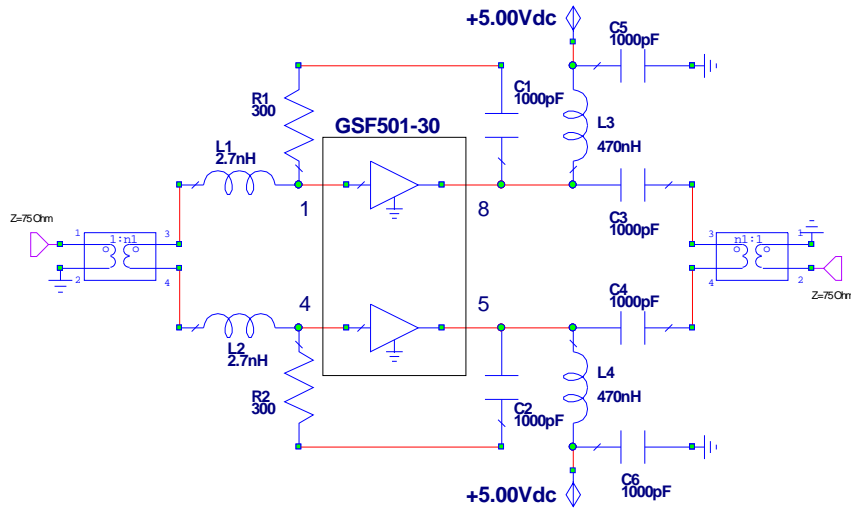
Absolute Maximum Ratings

Parameter	Rating
Case Temperature, Operating	-40 to +85 °C
Storage Temperature	-55 to +150 °C
Supply Voltage	+6
RF Input Power, continuous	+13 dBm
Junction Temperature	220 °C

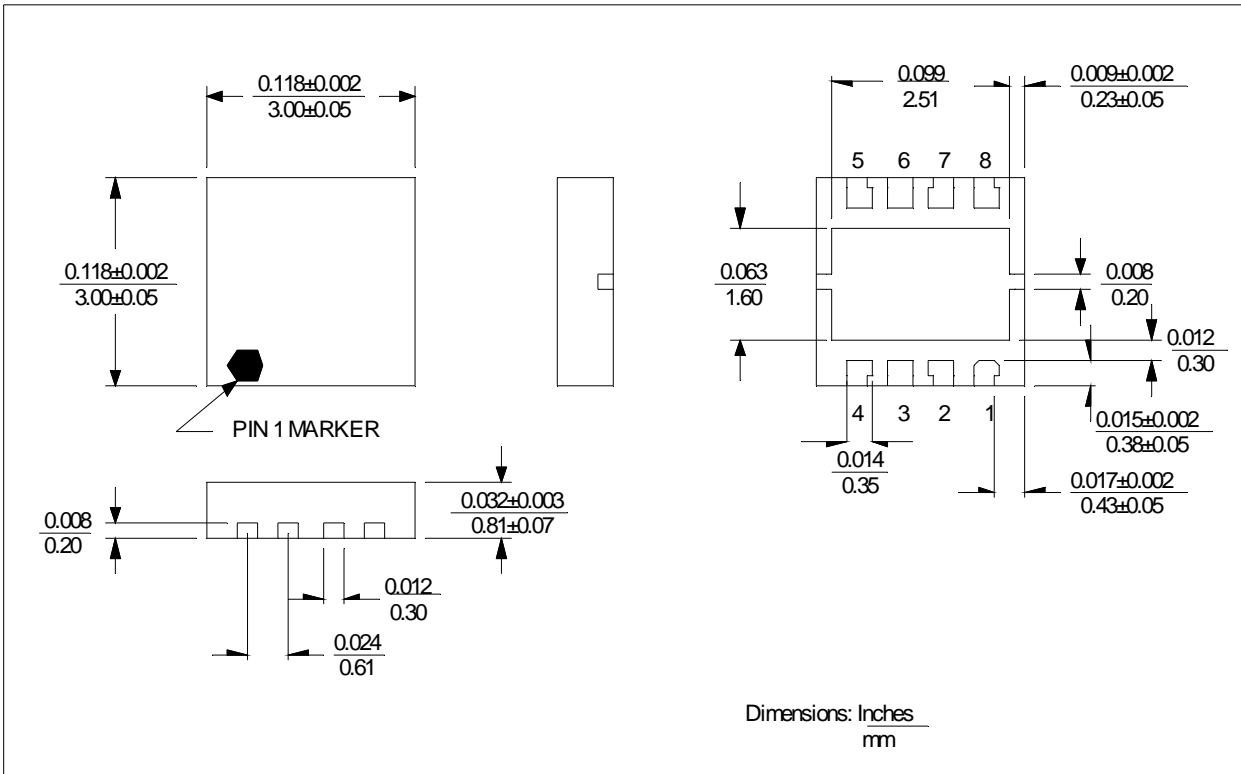
Operation of this device above any of these parameters will cause permanent damage.



Evaluation Board



Application Schematic



-30 Package outline

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