



### CATV Line Amplifier

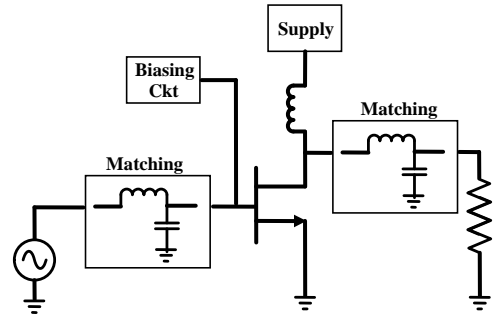
### RTV12

#### Description

The **RTV12** is a CATV Line Amplifier IP block, designed using GaAs Enhancement mode pseudomorphic high electron mobility transistor. The amplifier provides low distortion and noise figure along with flat gain. The part works with a supply Voltage of +6.0 V.

This can operates from 40 to 870 MHz band with 19 dB gain. The device is unconditionally stable throughout the band.

#### Functional Diagram



#### Applications

- CABLE TV

#### Key Features

- Low Cost, Small Size
- High Performance

#### Electrical Specification

Conditions: Vdd = 8.0 V & T<sub>A</sub>=25 °C

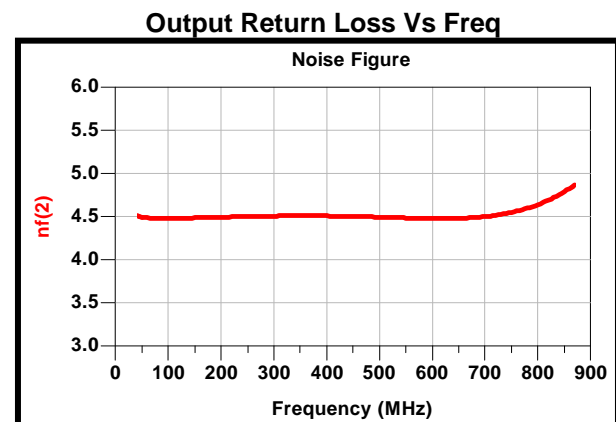
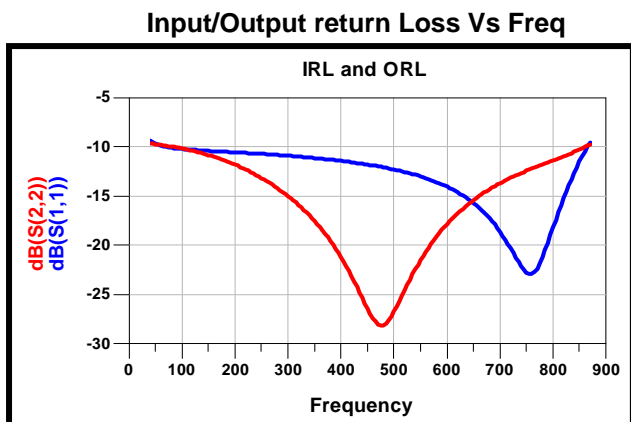
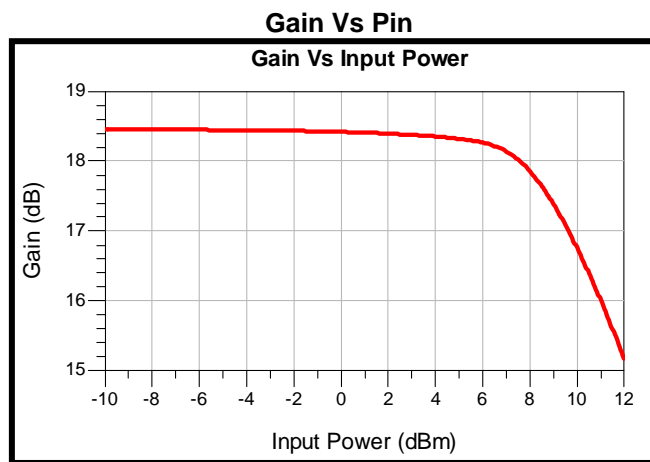
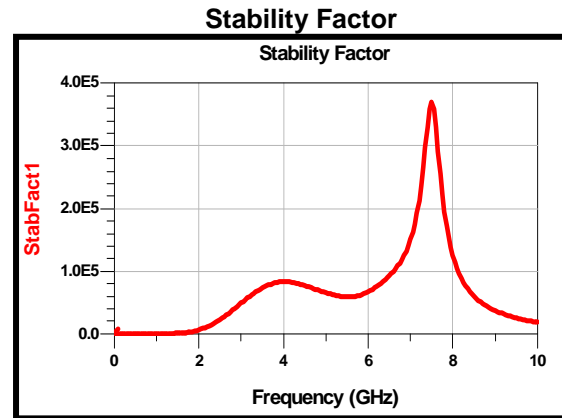
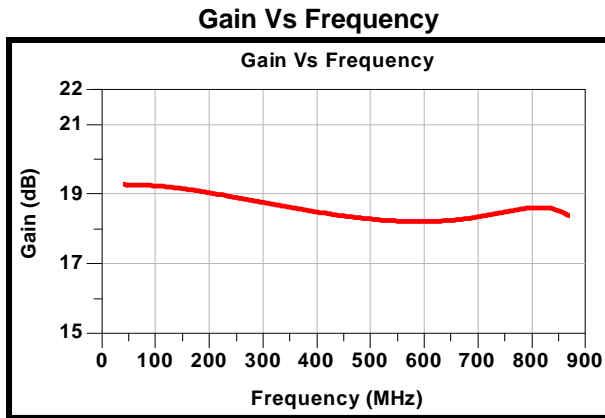
Parameter	Min	Typical	Max	Units
Frequency Range	40		870	MHz
Gain		19		dB
Power Output (P1 dB)		26.3		dBm
Input Return Loss		11.5		dB
Output Return Loss		22		dB
Supply Current		702		mA
Supply voltage		8		V



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Simulated Results





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**Layout**

