

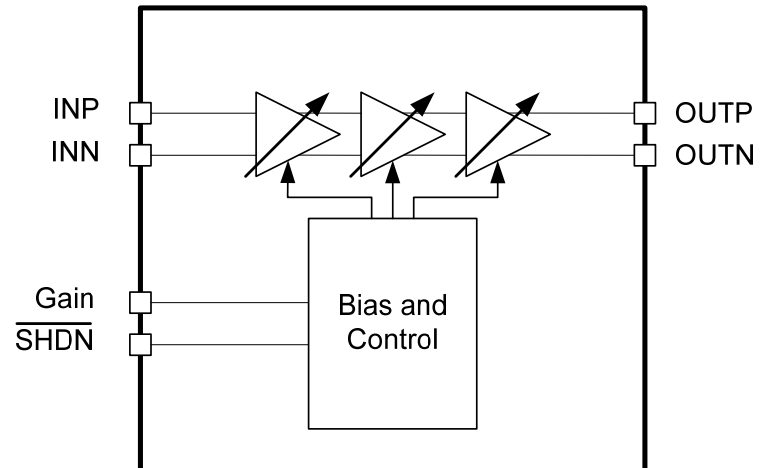
Typical Applications

- GPS Receivers
- Galileo Receivers
- GLONASS Receivers
- L1 and L2 Dual Band Receivers
- Precision Location Receivers

Key Features

- 0dBm IIP3
- 50 to 300MHz Operation
- 0 to 50dB Gain Range
- Compatible with TRFS06001 IF Level Detector
- 2.7V to 3.0V Supply

Block Diagram



IP Block Overview

The TRFS07001 is an AGC amplifier core designed for positioning receivers. It can be powered from a 2.7V to 3.0V supply and operates from 50 to 300MHz. While optimized for this frequency range, the IP block can be adapted to accommodate different IF frequencies. The input IP3 of 0dBm allows for excellent signal integrity even when large interfering signals are present. This AGC is therefore ideally suited for applications where accuracy under all environmental conditions is paramount. The gain of this IP block is controlled via an analog control signal and is adjustable from 0 to 50dB. This signal can be supplied externally or by using Tahoe RF's TRFS06001 IF level detector circuitry. An electronically controlled shutdown mode allows this IP block to be turned off completely using a digital control signal.

IP Block Performance Summary

Specification	Conditions	MIN	TYP	MAX	Units
Temperature Range		-40	25	85	°C
VDD		2.7	3.3	3.0	V
IDD	High Gain or Low Gain		13		mA
IDD	Shutdown Mode			10	μA
IF Input		50		300	MHz
Input IP3			0		dBm
Input Referred Noise			13.5		nV/√Hz
Gain		0		50	dB
Analog Control Voltage		0.5		2.5	V

Known Limitations/Issues

Revision History

Revision #	Date	Notes
V1.0	14-Dec-2008	Initial Draft
V1.1	14-Jan-2009	Initial Customer Release