

Typical Applications

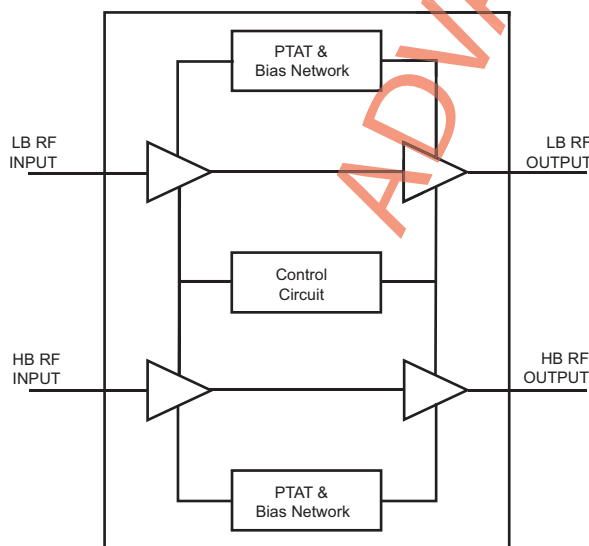
The TRFS-551 is a PA Driver core circuit for use in such applications as:

- CDMA2000, AMPS, US PCS High Band, US PCS Low Band, Korean PCS, JTACS, TACS systems
- Dual-mode and multi-band applications
- Voice and data applications

Product Overview

The TRFS-551 PA Driver has dual power amplifier drivers for multi-band wireless communication applications operating at 900MHz and 1.9GHz. The two amplifiers are 2-stage bipolar amplifiers with 50Ω single-ended outputs, and a dedicated bias utilizing an external current setting resistor. The amplifier can be set to operate in one of four linearity modes by programming the bias current. This helps to conserve chip power consumption under average power conditions as well as meet the peak power requirement. This core circuitry can be easily integrated with other circuits as well as packaged individually into a leadless chip carrier.

Block Diagram



Key Features

- Multi-band power amplifier drivers at 800-950MHz and 1.75-1.98GHz
- Each amplifier is a 2-stage bipolar single ended circuit
- Four linearity modes with OIP3=31dBm at max. current of 60mA
- Linear gain of 20dB for both

Performance Summary

Item	Unit	Min	Typical	Max	Notes
Supply Voltage	V	2.7	3.0	3.3	
Output impedance	Ω		50		
Low Band					
Operating Frequency	MHz	800	850	950	
Gain	dB	17	20	23	@850MHz
Output Referred Noise @40MHz offset	nV/ $\sqrt{\text{Hz}}$		15		@850MHz, Po=+10dBm, Icc=60mA
OIP3	dBm	30	31		@Icc=60mA
Output Power Level	dBm		10		
Supply Current (Icc)	mA		60		
High Band					
Operating Frequency	GHz	1.75	1.85	1.98	
Gain	dB	17	20	23	@1.85GHz
Output Referred Noise @40MHz offset	nV/ $\sqrt{\text{Hz}}$		15		@1.85GHz @Po=+10dBm Icc=60mA
OIP3	dBm	30	31		@Icc=60mA
Output Power Level	dBm		10		
Supply Current (Icc)	mA		60		

ADVANCE INFORMATION

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