

## Dual Rail-to-Rail Operational Amplifiers

### Features

- Wide Supply Operation Range +4.5V to +20V
- Beyond the Rails Input Capability
- Rail-to-Rail Output Swing
- Low Supply Current, 3mA / Per Amplifier (Typical)
- Low Input Offset Voltage 2mV (Typical)
- Internal Frequency Compensated for Unit Gain Stable
- Wide Bandwidth (unit gain) 30MHz
- High Slew Rate = 150V/μs
- Large DC Voltage Gain 80dB (Typical)
- ±180mA Output Short Current
- Embedded Over-Temperature Protection
- Short-Circuit Current Limit Protection
- MSOP-8, TSSOP-8, SOP-8 (FD) and MSOP-8 (FD) Package Available

### Applications

- Portable Equipment
- TFT Vcom/Gamma buffers
- Battery-Powered Equipment
- ASIC Input or Output Amplifier
- Low Power/Low Voltage Applications

### General Description

The G1563 is the dual rail-to-rail input/output operation amplifiers with the low power, high voltage swing. Operating on supplies ranging from 4.5V to 20V, while current consuming only 3mA / per amplifier, the G1563 is with high unit-gain bandwidth of 30MHz. The G1563 also provides common mode input ability beyond the supply rails, as well as rail-to-rail output capability. This enables this amplifier to offer maximum dynamic range at any supply voltage.

The G1563 also features fast slewing and settling times, as well as a high output drive capability of 65mA (sink and source). These features make these amplifiers ideal for high speed filtering and signal conditioning application. Other applications include battery power, TFT Vcom /Gamma buffers, portable devices, and anywhere low power consumption is important.

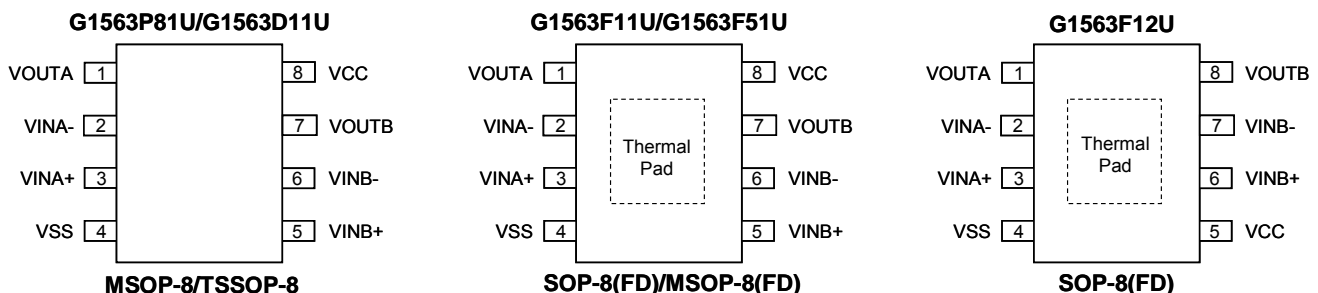
There are over temperature and short-circuit current limit protection embedded to avoid the unexpected damages. The G1563 is available in MSOP-8, TSSOP-8, SOP-8 (FD) and MSOP-8 (FD) package.

### Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G1563P81U	G1563	-40°C~ +85°C	MSOP-8
G1563D11U	G1563	-40°C~ +85°C	TSSOP-8
G1563F11U	G1563A	-40°C~ +85°C	SOP-8 (FD)
G1563F12U	G1563	-40°C~ +85°C	SOP-8 (FD)
G1563F51U	G1563	-40°C~ +85°C	MSOP-8 (FD)

Note: P8: MSOP-8 D1: TSSOP-8 F1: SOP-8 (FD) F5: MSOP-8 (FD)  
 1 & 2: Bonding Code  
 U: Tape & Reel

### Pin Configuration



Note: Recommend connecting the Thermal Pad to the VSS for excellent power dissipation.