

High Speed Rail-to-Rail Input Comparator with LVDS Compatible Outputs

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	12-Lead QFN (3mm x 3mm x 0.75mm w/ EP)
Product Type	Comparator ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for LTC6754IUD#PBF or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The LTC6754 is a high speed rail-to-rail comparator with LVDS compatible outputs. The LTC6754 exhibits 1.8ns of propagation delay, only 1ns of dispersion (10mV to 125mV overdrive) and a toggle rate up to 890Mbps.

The LTC6754 has rail-to-rail inputs, and will operate from a 2.4V to 5.25V supply. For the QFN package, the LVDS output is operated with a separate supply, providing isolation between input and output circuitry, and allowing for logic level translation.

In shutdown mode, power is reduced from 13.4mA to under 1.1mA, and the comparator can wake up in 120ns.

The LTC6754 includes 4.5mV of hysteresis to minimize instability. For the QFN package, a separate pin is available to set the hysteresis from 0mV (off) up to 40mV. The QFN version also features output latching to provide the ability to quickly capture the state of the comparator.

The dispersion of only 1ns combined with excellent propagation delay of 1.8ns makes the device an excellent choice for timing critical applications. Similarly, the 890Mbps toggle rate and low jitter of 1.5psRMS (200mVP-P, 245.76MHz input) make the LTC6754 ideally suited for high frequency line driver and clock recovery circuits.

## Features

Low Propagation Delay: 1.8ns Typ.

Low Overdrive Dispersion: 1ns Typ.

High Toggle Rate: 890Mbps Typ.

LVDS Compatible Output Stage

Rail-to-Rail Inputs Extend Beyond Both Rails

Low Quiescent Current: 13.4mA

Supply Range: 2.4V to 5.25V

Features within the LTC6754 Family:

Separate Input and Output Supplies

Shutdown Pin for Reduced Power

Output Latch and Adjustable Hysteresis

SC70 and 3mm × 3mm QFN Packages

## Application

Clock and Data Recovery

Level Translation

High Speed Data Acquisition Systems

Window Comparators

High Speed Line Receivers

Time Domain Reflectometry

Time of Flight Measurements

Cable Drivers

## Related Products



### [LTC1042CN8](#)

Analog Devices, Inc  
DIP8



### [LT1017IS8#PBF](#)

Analog Devices, Inc  
SOP8



### [LT1720CS8](#)

Analog Devices, Inc  
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### [LTC1540CMS8](#)

Analog Devices, Inc  
MSOP8



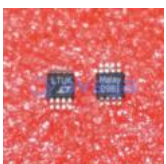
### [LT1719CS8](#)

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### [LT1018CS8](#)

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### [LT1713IMS8](#)

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