

Typical Applications

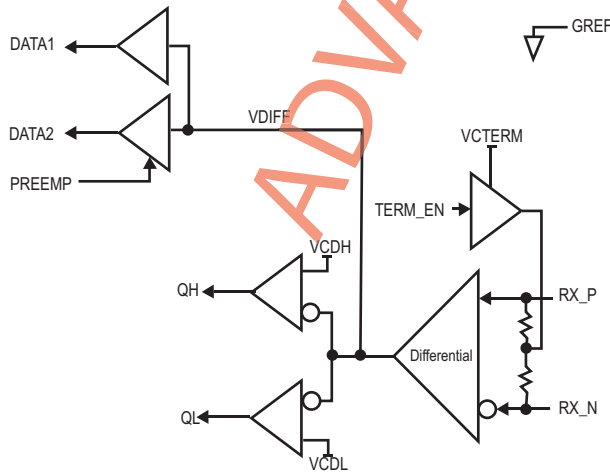
The TRFS-402 is a differential comparator core circuit for use in such applications as:

- Automatic test equipment
- Instrumentation

Product Overview

The TRFS-402 differential comparator is a pin electronics solution for automatic test equipment and instrumentation applications. The comparator has high-speed differential inputs and high-speed differential outputs for signals from DC to more than 5GHz, terminated at 100Ω differential. The differential comparator has an input voltage range of $\pm 2.5V$ with low dispersion, and a small equivalent input rise time of 65ps. It also has two data outputs; one standard, and one with programmable pre-emphasis. This core circuitry can be easily integrated with other circuits as well as packaged individually in a leadless chip carrier.

Block Diagram



Key Features

- Pin electronics dual differential comparator
- High-speed differential signals with 100Ω termination from DC to more than 5GHz
- Input voltage range of $\pm 2.5V$ differential
- Differential input equivalent rise time of 65ps
- Low dispersion of <5ps for differential comparator

Performance Summary

Item	Unit	Min	Typical	Max	Notes
Input Differential Voltage	V	-2.5		2.5	
Differential Output Voltage (peak-peak)	mV		640		With 100Ω load
Equivalent Input Rise Time (Differential)	ps		65		
Maximum Toggle Rate	GHz	5			
Minimum Pulse Width	ps			100	
Differential Compare Propagation Delay					
Slew Rate	ps		5		
Overdrive	ps		3.5		
Pulse Width	ps		2.5		

ADVANCE INFORMATION

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