



MAX1122-1124: 10-Bit 170-250 MSPS ADCs

PRELIMINARY

General Description

The MAX1122- MAX1124 are monolithic 10-bit 170-250MSPS analog-to-digital converters (ADCs). The ADCs have an on-chip track-and-hold circuit, are optimized for low power, small size and ease of use. These ADCs operate up to 250MSPS conversion rate and offer outstanding dynamic performance in wideband carrier systems.

The analog input is designed for either differential or single-ended operation (AC or DC coupled). A differential LVDS sampling clock is required for best performance. The products also feature an internal reference. The digital outputs are LVDS compatible. The output data format can be programmed as either two's complement or offset binary.

Fabricated in an advanced process, these converters are available in a 68-pin TQFN with exposed paddle and are specified over the industrial (-40°C to +85°C) temperature range.

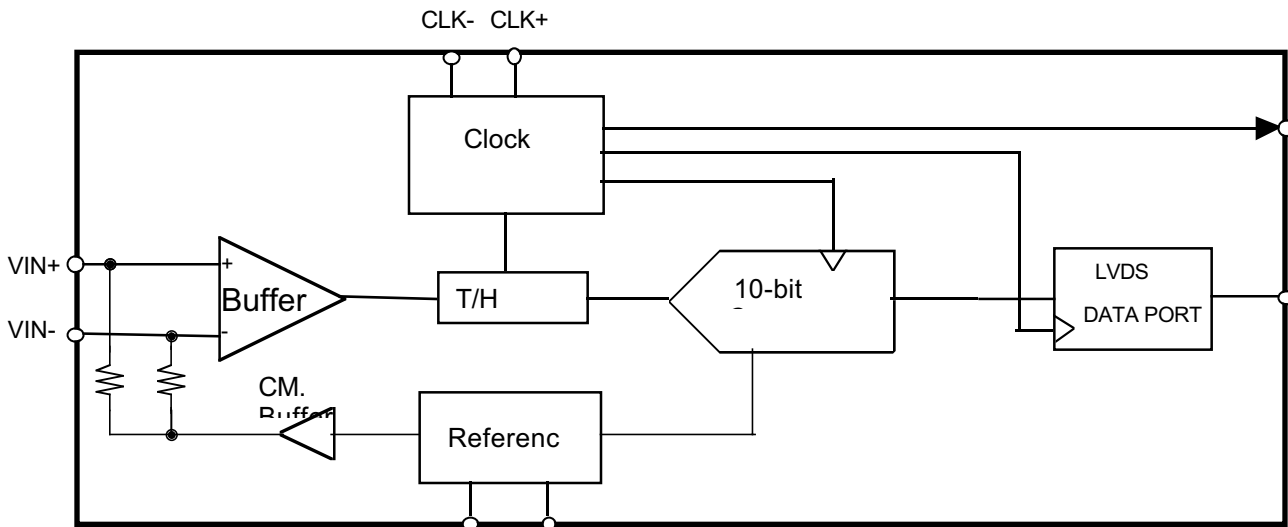
Features

- ◆ 250/210/170MSPS Conversion Rate
- ◆ On-Chip Track-and-Hold and Internal Reference
- ◆ 850 MHz Full Power Analog Bandwidth
- ◆ SINAD=57.8dBc @ Fin=10MHz at 250MSPS
- ◆ SINAD=56dBc @ Fin=180MHz at 250MSPS
- ◆ IMD=60dBc @ Fin=500MHz at 250MSPS
- ◆ $\pm 1/2$ LSB INL and DNL, Typical
- ◆ Power Dissipation <500mW at 250MSPS
- ◆ On Chip Selectable Divide-by-2 Clock Input
- ◆ LVDS Digital Outputs with Data Clock Output
- ◆ Offset Binary Output or Two's Complement

Applications

- Wireless and Wired Broadband Communication
- Test Equipment
- Radar and Satellite Sub-systems

Functional Diagram



For additional information go to: http://www.maxim-ic.com/email_max1124.cfm