HARRIS SEMICONDUCTOR

HI5905

PRELIMINARY

August 1997

14-Bit, 5 MSPS A/D Converter

Features

- Sampling Rate . . . . . 5 MSPS
- Low Power at 5 MSPS 350mW
- Internal Sample and Hold
- Fully Differential Architecture
- Full Power Input Bandwidth 100MHz
- Typical SINAD at 1MHz . . . . . >70dB
- Low Latency
- Internal Voltage Reference
- TTL Compatible Clock Input
- CMOS Compatible Digital Data Outputs

Applications

- Asymmetric Digital Subscriber Line (ADSL)
- Digital Communication Systems
- Undersampling Digital IF
- Document Scanners
- Reference Literature
  - AN9214 Using Harris High Speed A/D Converters

Description

The HI5905 is a monolithic, 14-bit, Analog-to-Digital Converter fabricated in Harris' HBC10 BiCMOS process. It is designed for high speed, high resolution applications where wide bandwidth, low power consumption and excellent SINAD performance are essential. With a 100MHz full power input bandwidth the converter is ideal for many types of communication systems and document scanner applications.

The HI5905 is designed in a fully differential pipelined architecture with a front end differential-in-differential-out sample-and-hold (S/H). The HI5905 has excellent dynamic performance while consuming 350mW power at 5 MSPS.

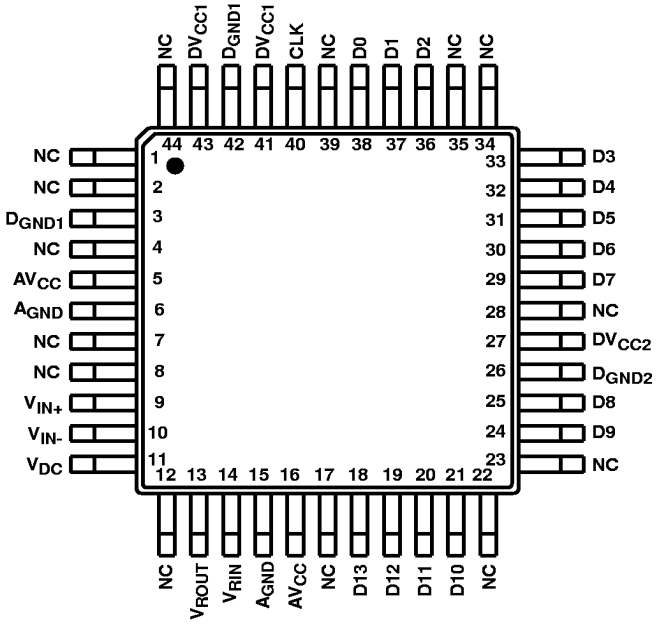
Data output latches are provided which present valid data to the output bus with a latency of 4 clock cycles.

Ordering Information

PART NUMBER	SAMPLE RATE	TEMP. RANGE (^{o}C)	PACKAGE	PKG. NO.
HI5905IN	5 MSPS	-40 to 85	44 Ld MQFP	Q44.10x10

Pinout

HI5905 (MQFP)
TOP VIEW



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