12-Bit, 100 MSPS, High Speed D/A Converter

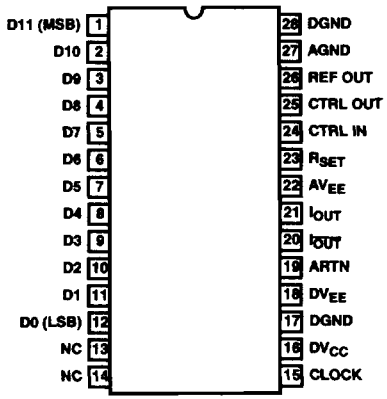
The HI5731 is a 12-bit, 100 MSPS, D/A converter which is implemented in the Harris BiCMOS 10V (HBC-10) process. Operating from +5V and -5.2V, the converter provides -20.48mA of full scale output current and includes an input data register and bandgap voltage reference. Low glitch energy and excellent frequency domain performance are achieved using a segmented architecture. The digital inputs are TTL/CMOS compatible and translated internally to ECL. All internal logic is implemented in ECL to achieve high switching speed with low noise. The addition of laser trimming assures 12-bit linearity is maintained along the entire transfer curve.

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HI5731BIP	-40 to 85	28 Ld PDIP	E28.6
HI5731BIB	-40 to 85	28 Ld SOIC	M28.3
HI5731-EVS	25	Evaluation Board (SOIC)	

Pinout

HI5731
(PDIP, SOIC)
TOP VIEW



Features

- Throughput Rate . . . . . 100 MSPS
- Low Power 650mW
- Integral Linearity Error . . . . . 0.75 LSB
- Low Glitch Energy 3.0pV-s
- TTL/CMOS Compatible Inputs
- Improved Hold Time 0.25ns
- Excellent Spurious Free Dynamic Range

Applications

- Cellular Base Stations
- GSM Base Stations
- Wireless Communications
- Direct Digital Frequency Synthesis
- Signal Reconstruction
- Test Equipment
- High Resolution Imaging Systems
- Arbitrary Waveform Generators