

DATA SHEET

Typical Applications

- Data acquisition systems
- Industrial control applications

Features

- Technology CMOS
- Low consumption 8 mA
- Supply voltage 3 V – 5.5 V
- Resolution 8 Bits
- Sampling Rate 10 MS/s max
- Low input capacitance
- Output Code Binary

Product Description

The FLASH 8 Bits is a complete analog to digital converter cell which operates from a single supply. It performs sampling, analog-to-digital conversion, generating a 8 bits value in parallel form.

The output word rate can be up to 10 MS/s. The output data format is compatible with most μ P and digital signal processors.

Absolute Maximum Ratings

Symbol	Parameter	Min	Typ	Max	Unit
	Power supply voltage	3		5.5	V
	Junction temperature	-40		85	°C
	Storage temperature	-65		150	°C
	Resolution			8	Bit

DC ACCURACY

Symbol	Parameter	Min	Typ	Max	Unit
	Resolution (No missing Code)	8	8	8	Bit
	Offset Error	-0.5		+0.5	LSB

ANALOG INPUT

Symbol	Parameter	Min	Typ	Max	Unit
Fin	Input Signal Frequency (VIN)		2.5	5	MHz
INdyn	Input Signal Dynamic (VIN)	VSS + 10%		VDD – 10%	V
Rin	Input Impedance (VIN)	100			MΩ
Cin				5	pF

DIGITAL INPUTS AND OUTPUTS

Symbol	Parameter	Min	Typ	Max	Unit
VDD	Positive Power Supply	3	5	5.5	V
VSS	Negative Power supply	0	0	0	V
VIL	Digital Input Level	VSS		0.3×VDD	V
VIH		0.7×VDD		VDD	V
VOL	Digital Output Level		VSS		V
VOH			VDD		V

POWER REQUIREMENTS

Symbol	Parameter	Min	Typ	Max	Unit
VDD	Positive Supply	3	5	5.5	V
VSS	Negative Supply	0	0	0	V
IDD	Supply Current		8		mA
IDD_PD	Supply Current in Power Down Mode		0.1		μA

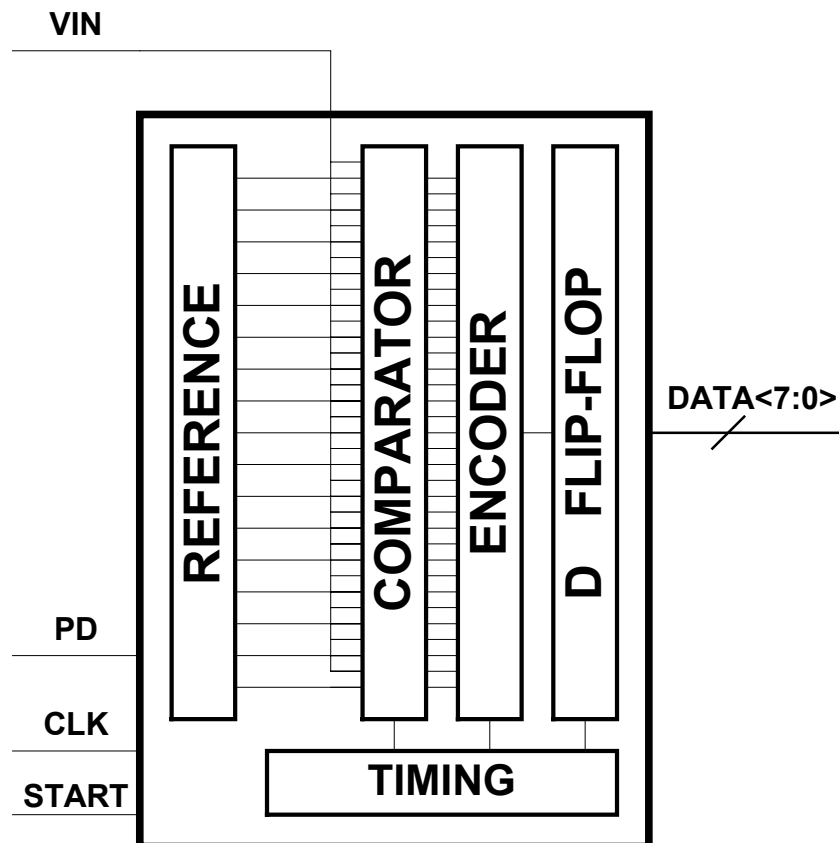
TIMING CHARACTERISTICS

Symbol	Parameter	Min	Typ	Max	Unit
1/Tconv	Conversion Rate		5	10	MS/sec
CLK	Master CLOCK Frequency		30	50	MHz
Tconv	Total Conversion time		6	5	cycles

GENERAL PARAMETERS

Symbol	Parameter	Min	Typ	Max	Unit
X	x- Size of macro cell		987		μm
Y	y – Size of macro cell		5610		μm

Functional Block Diagram



Pin Description

Pin Name	Description
VIN	Analog input - Input signal
PD	Digital input - Mode Power Down
CLK	Digital input - Master CLOCK Frequency
START	Digital input - Start of conversion
DATA<7:0>	Digital output - DATA

Timing Diagram

