

UADC-1012A-180MS

0.18μm 3.3V/1.8V 12-bit 1Msps Cyclic ADC

Features

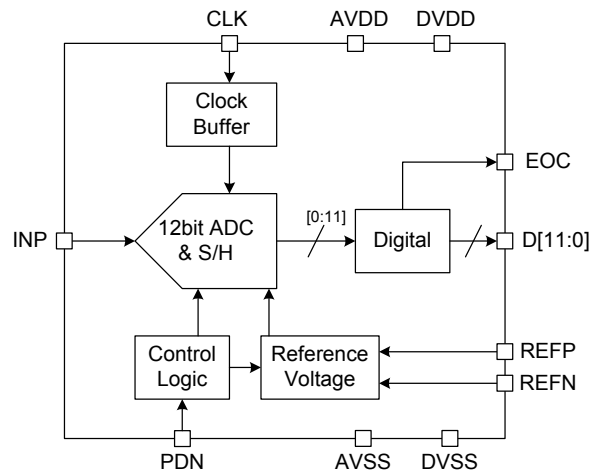
- ◆ 12-bit resolution
- ◆ 1Msps conversion rate
- ◆ Single-end and differential input available (0V ~ 2Vpp or 0V ~ 2Vppd)
- ◆ Monotonic guaranteed
- ◆ Power-down mode available
- ◆ Power dissipation:4.95mW
- ◆ 3.3V analog power supply operation
- ◆ 1.8V digital power supply operation
- ◆ Operation temperature range:0°C~85°C
- ◆ Core cell area: 0.162mm²
- ◆ 0.18μm 3.3V/1.8V mixed-signal SALICIDE process with 1P5M layout

Overview

The UADC-1012A-180MS is a general-purpose analog-to-digital converter with 12-bit resolution. The sampling rate is up to 1Mega samples per second. The IP contains a track/hold amplifier, a 12-bit ADC and a high-speed parallel interface. The ADC requires two external reference voltages, VRP and VRM.

A power down mode is available to disable the ADC and cut-off the power supplies to this IP for lower power dissipation in standby mode.

Block Diagram



Global Unichip Corp.

TEL: +886-3-5646600 <http://www.globalunichip.com>
 FAX: +886-3-5646000 e-mail: info@globalunichip.com
 No. 10, Li-Hsin 6th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan

Description

The UADC-1012A-180MS is a general-purpose ADC with 1Mhz sampling rate. The converted digital code is represented by unsigned-digital. The input full swing of ADC is defined by reference voltage REFP and REFN, normally 2.0V single-ended or 2.0V differential. This ADC is suitable for applications requiring high resolution and low conversion rate, such as voltage detectors.

Deliverables

- Comprehensive documents
- Hard macro
- Synopsys™ synthesis model
- Verilog model
- TLF model
- LEF model
- Testchip and evaluation board

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No. 10, Li-Hsin 6th Rd., Hsinchu Science Park, Hsinchu City 300, Taiwan