

High precision 14b 2MS/s ADC

NSAD_TS180_1V8_AD14B2M

Main characteristics

- TSMC 180
- 1.8V supply voltage
- 14b interface
- 2MS/s
- 13 ENOB
- 40mA

Deliverables

- GDS II layout
- LEF abstract
- CDL netlist
- Liberty timings
- Verilog description
- A full datasheet
- An integration note

Status

- Pre-silicon

Product description

The nSAD_TS180_1V8_AD14b2M is a 14b 2MS/s, 13 ENOB, low-power SAR fully-differential AD converter designed on the TSMC 180 process. It consumes 40mA.

Applications

- Data acquisition and processing
- Battery-powered instruments
- Industrial control systems
- Micro-controller analog interface
- Sensor interfaces

Main features

- 40mA consumption during operation
- Power-down consumption of 1 μ W
- 50mV/V gain error and 1mV offset typical
- 80dB SNDR
- ± 0.5 LSB INL and 0.5 LSB DNL



nSilitation
Smaller, Smarter, Stronger

Copyright © 2015 nSilitation sprl
31, bd Dolez, 7000 Mons (Belgium)
VAT: BE 885821519

Support can include close integration follow-up by our design team or custom-made cells or features

Further information

For further information about this product and other nSilitation IPs, development roadmap, availability and licensing terms, please e-mail to sales@nsilitation.com.

Delivery and support

This cell is available as hard macro-cell for reuse in any design based on the TSMC 180 CMOS process. No extra IP license from any third party will be needed for the cells or the cell library.

In addition, full support service is available on request. Support can include close integration follow-up by our design team or custom-made cells or features.

Porting to another process

This cell is in the TSMC 180 CMOS process. It can be easily ported to another foundry and/or another similar CMOS process node upon request. Please contact us for details and availability.

About nSilitation

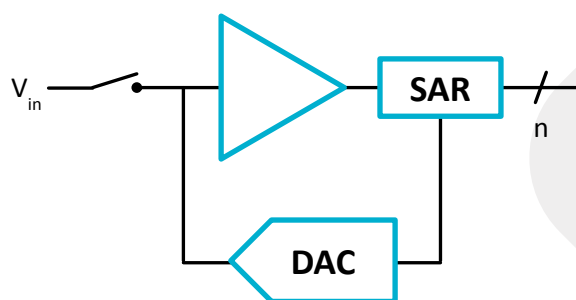
nSilitation is a leading analog and mixed-signal semiconductor IP provider.

nSilitation specializes in the development of high quality analog and mixed-signal high performance semiconductor IPs. With reference designs available for 10b to 14b A/D and D/A converters, high-speed IO circuits, PFM and PWM high efficiency DC/DC integrated converters and high precision bandgap references; nSilitation enables the highest value analog and mixed-signal functionalities at the lowest risk.

The "IP design" service of nSilitation offers top-class quality, customization and support dedicated to your needs and your specifications.

Disclaimer

The information provided by nSilitation has been verified and is believed to be accurate. nSilitation and all its right holders reserve the right to make changes to the information contained herein without notice. They reserve also the right to make changes to the product without notification. No liability shall be incurred as a result of the use or application of the information provided in this data sheet and/or the use of the corresponding product in any case.



Charge-redistribution SAR-ADC block diagram



nSilitation
Smaller, Smarter, Stronger

Copyright © 2015 nSilitation sprl
31, bd Dolez, 7000 Mons (Belgium)
VAT: BE 885821519