VT18AD12B8D

## 12-Bit Dual ADC, 80Mhz - 3.3V

Overview:

This dual channel Analog -to-Digital converter IP is based on a monolithic differential pipelined architecture with output error correction logic providing 12 bits conversion accuracy up to 80 Mhz sampling frequency. It is designed for industry standard 0.18um 1P6M CMOS technology supplied at 3.3V.

This dual channel ADC can interface with both 1.8V or 3.3V core logic, by connecting dvdd to 1.8V or 3.3V power line, giving more flexibility for design reuse.

Features:

- 12-Bits pipeline architecture
- 80MS/s sampling rate
- No missing code guaranteed
- 2.0 Vp-p differential input
- 3.3V ±10% supply voltage, -40/+125°C temperature.
- 1P6M layout structure based on 0.18um 1P6M 3.3V/1.8V generic logic process.
- Fully differential architecture
- Area: [contact us]
- Power consumption [contact us]
- Power down leakage current <1uA
- Antenna diodes on each digital input.
- uses MIM capacitor

Block Diagram:
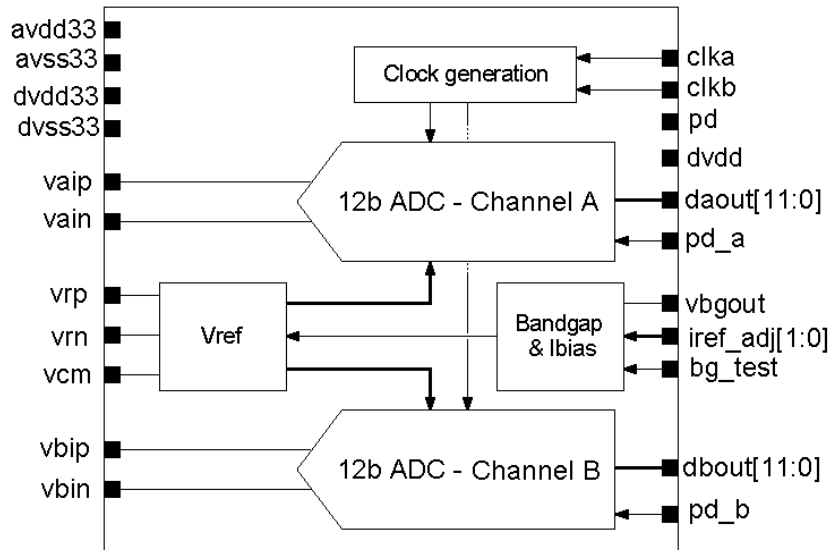
Application:

- Communication Receiver Channel (IF sampling)
- Mobile TV
- Digital Imaging/video
- Graphic capture
- Ultrasound Equipment

Deliverables:

V-Trans provides 2 separate kits depending on licensing agreement.
In most cases, the physical is merged on foundry site.

Design Kit

Design kit includes :
- LEF view and abstract gdsII
- Verilog HDL behavioral model
- Liberty (.lib) timing constraints for typical, worse and best corner case
- Full Datasheet /Application Note with integration guidelines document
- Silicon characterization report when available

Tapeout Kit

Tapeout kit includes the design kit plus plysical view:
- gdsII
- LVS netlist and report
- DRC/ERC/ESD/ANT report

Portfolio and Design Services:

V-Trans Microelectronics has been combining all the best practices and methodologies in analog and mixed-signal high speed interfaces design to answer the demanding market of high performance analog IPs using cheaper technologies such as 0.18um.

Our Portfolio covers a wide range of applications and can be customized on demand to answer exactly your specific needs.

Custom layout and back-end services are also available if you have a tied project schedule.
Our experience includes high integration circuit such as network SOC, CPU and FPGA which allow us to provide a full solution for even more complex chip.

Please contact us to tell us how we could help you or for any analog IP information.

- High speed interfaces (LVDS serdes, Display Interfaces, DDRII, DDR3, PCI-X, HDMI rev1.1)
- Converters (video ADC 10b 170Mhz, Triple video DAC)
- Timing circuits (Audio PLL, Video PLL, DDR memory PLL, custom PLL.)
- Low noise Crystal Oscillators
- Power management (LDO regulators, Power On Reset..)
- Video and WIMAX Analog Front end

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