Product Outline

8-Ch, 250MSPS, 14-bit, JESD204B, ADC FMC

IO Connectors
- 8x MMCX analog inputs
- 1x Trigger input/output [LVTTL, 5V TOL]
  - Trigger bleeds into channel for latency measurement
  - Trigger output can be used to initiate an external event upon data pattern detection
- 1x Reference clock input/output [SINE]
  - Synchronize multiple boards via a master reference

Clocking
- Clock Generator (Analog Devices: AD9528)
  - Capable of locking to a reference from the FPGA carrier card, free running using the onboard reference, or locking to an external reference
  - Generates and returns the necessary clocks to the FPGA carrier card (drives MGT REFCLK and/or Global Clock)
  - Flexible and programmable SYSREF generation

Performance
- Analog input bandwidth: 4.5 MHz – 500 MHz (-3dB)
- Ch-to-ch crosstalk below -75dB @ TBD MHz
- Onboard clock generator capable of sub-200fs jitter
- Full-scale input programmable 1.383 Vpp – 2.087Vpp
- ADC Multiple Device Synchronization (MDS) for coherent sampling across all ADC channels (JESD204B class MCDA-ML)

Power Requirements
- Main rails: 12V and 3.3V
- VADJ: 1.2 to 3.3V (onboard level translators)

Board Dimension
- Single width, conduction cooled, HPC FMC with regions 1,2,3

Ideal for general instrumentation and a variety of mixed signal application developments

Features
- 10x MMCX connectors
  - 8x Transformer-coupled ADC inputs
  - 1x Trigger input/output
  - 1x Clock reference input/output
- Single width, conduction cooled FMC
- Compatible with FMC Specification (VITA 57.1)
- Designed for electrical compatibility with most carrier cards.*

* Verify your target mainboard with us prior to ordering

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Function Block Diagram
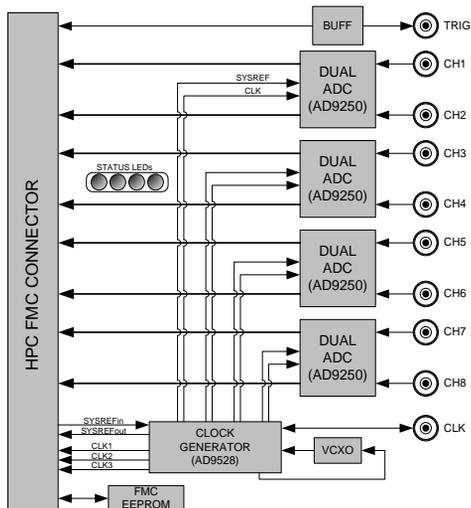
Available References

Design Package (available under license)
- Schematics, PCB Layout, Artwork, Bill of Materials

FPGA Reference Designs
- Downloadable .bit file examples
- Licensable source (some blocks netlist encrypted)
- VC707 target, ACDC targets coming soon

Sales and Support

For additional information, questions or request for quotation visit: www.fidus.com

Customize your FMCH-8AD250

Speak with our Design Services Group on how to accelerate your custom design: design@fidus.com

About Fidus

Fidus Systems, founded in 2001, specializes in leading-edge electronic product development with offices in Ottawa and Waterloo Ontario, and San Jose, California. Our hardware, software, FPGA and signal integrity teams architect, design and deliver next-generation products for clients in emerging technology markets. We build long-term relationships by consistently exceeding expectations.

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