

FM500

TEST FMC WITH MINI-SAS CONNECTOR

The **FM500** is a Test FMC, typically used during firmware and software development and debugging cycles on the **VF360**. The front panel contains two mini-USB connectors and a 4 lane mini-SAS (SFF-8088) connector.

The four full-duplex high-speed serial lanes on the mini-SAS connects, via the HPCFMC connector, to the FPGA on the DP[0:3]_M2C/C2M signals. Typical protocols on the mini-SAS are PCIe, XAUI, SRIO, SerialLite II and others.

The FPGA mini-USB connector on the front panel is part of a USB-Blaster, implemented on the FMC, that connects to the FPGA via an innovative debug interface connector. It provides SignalTap® II and other JTAG based functionality.

The DSP mini-USB connector on the front panel is part of an XDS100 emulator, implemented on the FMC, that connects to the DSP via the debug interface connector. It provides in-circuit emulation (ICE) functionality as well as a USB serial port for debugging.

A **VF360** Firmware Reference Design (FRD) provides an XAUI interface on the **FM500** mini-SAS connector for a cable connection to other cards in the same or other racks.

The **VF360** Etion product is a 3U VPX carrier card with an Intel Stratix® V FPGA, TMS320C667X DSP processor and FMCsite.

Specifications

USB-Blaster II Functionality

- Mini USB connector
- Connects to Stratix® V FPGA
- SignalTap® II Logic Analyser
- FPGA configuration via JTAG
- EPCQ Programming

XDS100 Functionality

- Mini USB connector
- Connect to TMS320C667X DSP
- In Circuit Emulation (ICE)
- USB Serial Port for debugging
- Compatible with Code Composer Studio

Front Panel Mini-SAS Characteristics

- SFF-8088 connector
- 4x full-duplex high-speed serial lanes
- Connect to FPGA on DP[0:3]_M2C and DP[0:3]_C2M
- Up to 6Gb/s data rate
- Up to 10m cables

Firmware Support

- VF360 Firmware Reference Design (FRD) with XAUI on Mini-SAS
- Firmware development services available on request

Application Examples

- FPGA debugging with SignalTap® II Logic analyser
- DSP debugging and in-circuit emulation with XDS100
- High-speed serial front panel connection between cards

Ordering Information

FM500

(Standard order code: FM500)

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Block Diagram

