XMC-FGX-SDI-IO

FGX Video Capture, Convert, Transmit; with SDI and Analog I/O

PRELIMINARY INFORMATION

KEY FEATURES

- WOLF Frame Grabber eXtreme (FGX) capture, convert and transmit engine
- Up to 2 SDI inputs and outputs
- Up to 3 CVBS inputs and 1 CVBS output
- Up to 2 RGB/STANAG inputs and outputs
- Low operating power, under 7.5W

ADDITIONAL FEATURES

- 3G-SDI, HD-SDI, and SD-SDI support
- Analog input format support: CVBS, RGB, STANAG 3350
- Additional video standard support optional
- PCIe x4 Gen2 with up to 2.0 GB/s
- Six General Purpose Input/Output (GPIO)
- 4GB DDR3L memory
- Windows and Linux drivers
- VxWorks RTOS drivers optional
- Extended product lifespan

SPECIFICATIONS

- High level of ruggedization:
  - ☐ Rugged conduction-cooled
  - ☐ Operating temperature: -40° to +85°C
  - ☐ Vibration (sine wave): 10G peak, 5 - 2000Hz
  - ☐ Shock: 40G peak for conduction-cooled
- VITA 46.9 I/O compliant mapping for 3U and 6U VPX configurations
- Available with XMC 1.0 or XMC 2.0 connectors
- Dimensions: 143.75mm x 74mm

OVERVIEW

This versatile capture, convert and transmit board includes WOLF's Frame Grabber eXtreme (FGX), built on Xilinx FPGA hardware. This board accepts multiple simultaneous inputs and can output multiple formats, including 3G-SDI, HD-SDI and analog CVBS, STANAG 3350 or other optional formats. The module can also accept video sources from a PCIe DMA stream for real-time conversion to SDI or analog output.

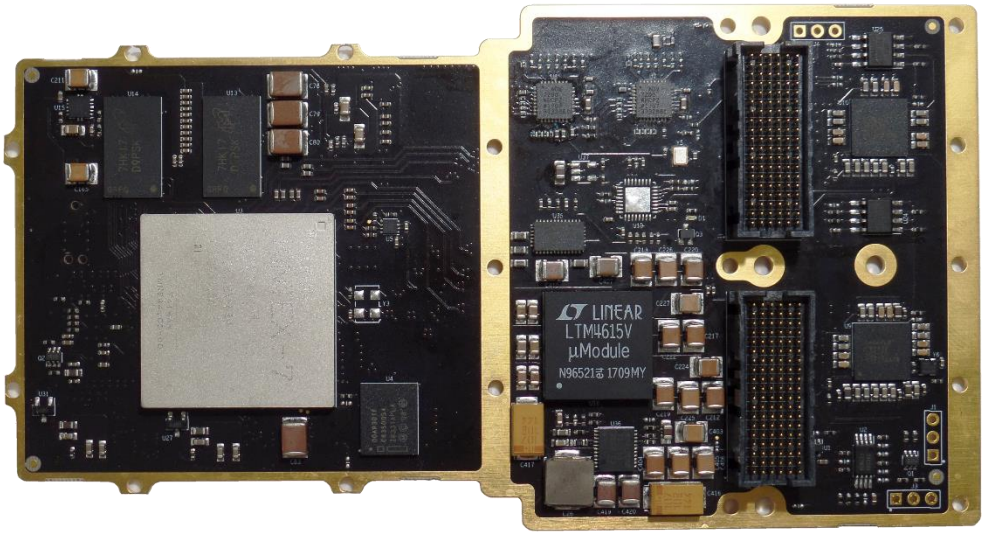
The raw data from each channel can be streamed with sub-frame latency to the host system or to a GPU for storage, analysis, enhancement, encode or display.

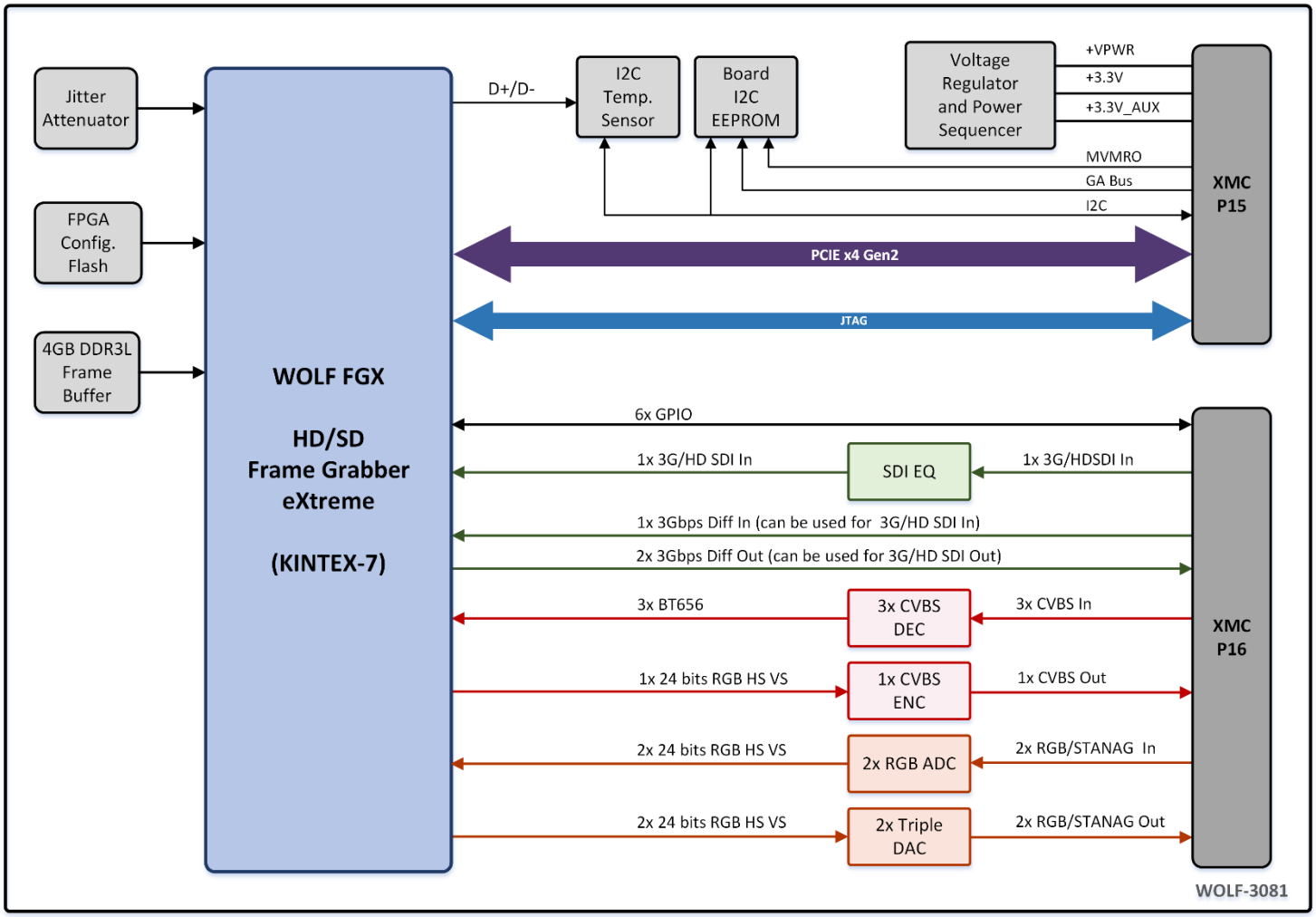
The WOLF FGX high-performance engine provides the flexibility required for fast, cost-effective MCOTS customization, allowing the module to be modified to interface with many video standards or system hosts.

This is preliminary and subject to change.

XMC-FGX-SDI-IO

PRELIMINARY INFORMATION





This is preliminary and subject to change.

PRELIMINARY INFORMATION

ORDERING CODES

The following table defines series of common order codes for the XMC-FGX-SDI-IO module. The asterisks denote characters of the part number that are defined based on common configuration options. Some common configuration options for this module are:

- Video formats supported
- Conformal Coating Type
- RTOS Support
- COTS, MCOTS or Locked

	Ordering Number	Description
	XMC-FGX-SDI-IO Configurations	
	318131-F***-***vA0	XMC 1.0, Conduction Cooled, WOLF FGX
	318132-F***-***vA0	XMC 2.0, Conduction Cooled, WOLF FGX

Contact Sales for the latest Ordering Numbers and available options

MANUFACTURING AND QUALITY ASSURANCE

WOLF designs modules to pass the following environmental standards:

- MIL-STD-810 (United States Military Standard for Environmental Engineering Considerations and Laboratory Tests)
- MIL-HDBK-217 (Reliability Prediction of Electronic Equipment)
- RTCA DO-160 (Environmental Conditions and Test Procedures for Airborne Equipment) on request

WOLF complies with the following management systems:

- AS9100D: Quality Management System - Requirements for Aviation, Space and Defense Organizations (certified)
- ISO 9001:2015: Quality management systems (certified)
- AS5553: Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition (compliant)
- NIST SP 800-171: Protecting Controlled Unclassified Information in Nonfederal Systems (compliant)

Boards are manufactured to meet the following standards:

- IPC-A-610 CLASS 3 (Acceptability of Electronic Assemblies)
- IPC 6012 CLASS 3 (Qualification and Performance Specification for Rigid Printed Boards, Class 3 for High Reliability Electronic Products)
- IPC J-STD-001 (Requirements for Soldered Electrical and Electronic Assemblies)

AS9100 • ISO 9001 CERTIFICATION Intertek

ITAR Free

GOVERNMENT-INDUSTRY DATA EXCHANGE PROGRAM GIDEP

This is preliminary and subject to change.