Tekmicro

The New Force in Embedded Systems

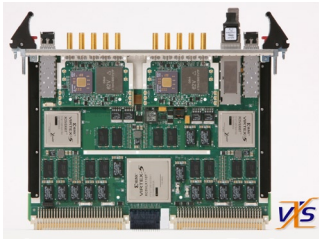
DIGITIZERS AT A GLANCE

QuiXilica VXS FPGA-Based Solutions for Sensor I/O Processing

The QuiXilica VXS family of digitizers are flexible analog and digital VITA 41.0 VXS I/O products. High performance analog and digital I/O front ends are combined with a scalable Xilinx Virtex-5 FPGA based processing architecture. Memory and inter-processor communication resources are optimized for very high performance real time DSP applications. QuiXilica includes development kits, FPGA cores and software, giving users power and flexibility while retaining consistency and ease of use. All QuiXilica-V5 products are available as convection or conduction cooled.

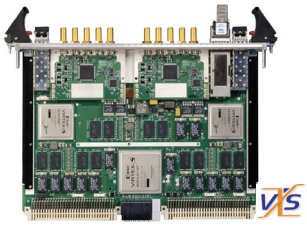
QUIXILICA V5 PRODUCTS

Neptune-V5 VXS



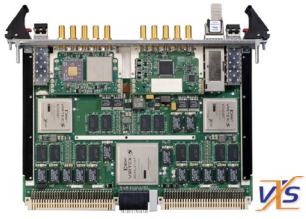
- **2 channel 10-bit 2.2 Gsps ADC**
- 6 front panel high speed serial ports at 3.75 Gb/s each
- 1 GB DDR3 Memory/FPGA (3X)
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links
- Advanced Temperature and Current Monitoring
- QuiXstart FPGA Configuration System
- VME/VXS form factor, VITA 41.0 Compliant

Orion-V5 VXS



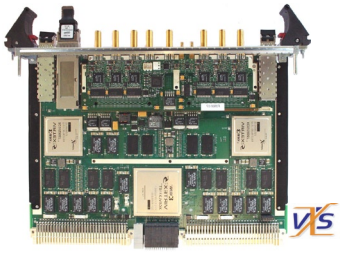
- **Dual Channel 12-bit 3.0 Gsps DAC**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

Triton-V5 VXS



- **Dual Channel, 3.0 Gsps ADC and DAC Digitizer**
- **1x 10 bit 2.5 Gsps ADC/DMUX**
- **1x 12 bit 3.0 Gsps MUX/DAC**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

Tarvos-V5 VXS



- **6x 16-bit 185 Msps ADC channels based on LTC2209**
- **One 16-bit 185 Msps DAC channel based on MAX5891**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

Titan-V5 VXS

- **3x 16-bit 600 Msps DAC**
- **3x 12-bit 500 Msps ADC**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

Janus-V5 VXS

- **7x 16-bit 500 Msps DAC channels, based on MAX5891**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

Atlas-V5 VXS

- **6x 12-bit 500 Msps ADC**
- 1 GB or 2 GB DDR3 Memory per FPGA (3X)
- 1x Front Panel QSFP slot for 4x 3.75 Gb/s^{MAX}
- 2x Front Panel SFP+ slots for 3.75 Gb/s^{MAX}
- Dual 4x Full Duplex VXS Links
- 2x Full Duplex Vita 41.6 Ethernet Links

QuiXilica family

QUIXILICA V2 PRODUCTS

Callisto VXS

- **Five VC2VP50 FPGAs** provide high bandwidth communications links
- High performance FPGA Based Communications management and processing platform
- Fits in Switch card position in VXS backplane
- High Performance FPGA Based Communications Management and Processing Platform

Triton VXS

- **Dual Channel, 2 Gsps ADC and DAC Combo Digitizer**
- **1x 10-bit 2 Gsps Atmel ADC/ DMUX**
- **1x 12-bit 2 Gsps Euvis MUX/DAC**
- 2x Front Panel SFP Slots for 2.5 Gb/s Fiber or Copper Transceivers
- 2x DDR SDRAM SODIMM Slots, Up to 2 GB Each
- Large FPGA Processing Engine

Neptune VXS

- **Dual Channel 2 Gsps ADC Digitizer**
- 2x 10-bit 2 Gsps Atmel ADC/ DMUX
- 2x Front Panel SFP Slots for 2.5 Gb/s Fiber/Copper Transceivers
- 2x DDR SDRAM SODIMM Slots, Up to 2 GB Each
- Large FPGA Processing Engine

Tarvos VXS

- **6x 16-bit 160 Msps ADC channels based on LTC2209**
- **One 16-bit 500 Msps DAC channel based on MAX5891**
- 2x front-panel SFP slots for 2.5 Gb/s fiber or copper transceivers
- 2x on-board DDR SDRAM banks 512 MB/bank
- 2x DDR SDRAM SODIMM slots, up to 2 GB each
- Large FPGA Processing Engine

Janus VXS

- **7 x 16-bit 500 Msps DAC channels, based on MAX5891**
- 2 x front-panel SFP slots for 2.5 Gb/s fiber or copper transceivers
- 2 x on-board DDR SDRAM banks, 512 MB per bank
- 2 x DDR SDRAM SODIMM slots, up to 2 GB each
- Large FPGA Processing Engine

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