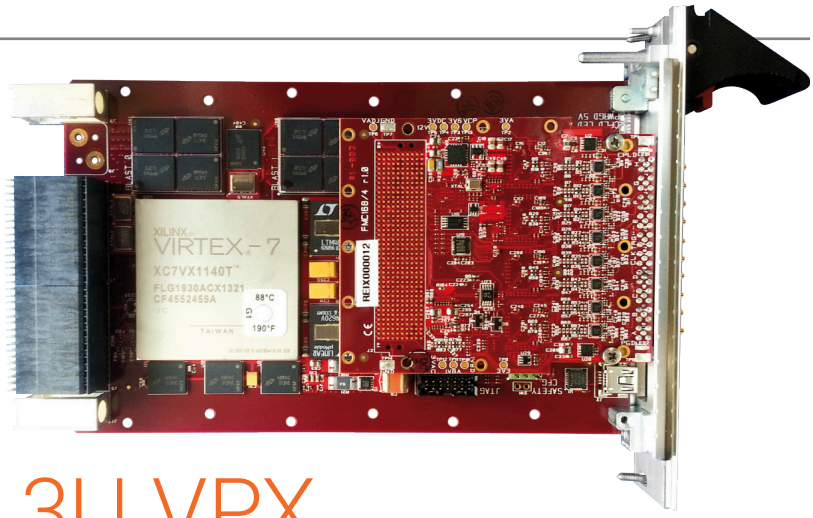


VP796 Virtex™ 7 3U VPX

VITA 46 Compliant with 16 A/D 125Msps

Abaco Systems' VP796 is a high-performance FPGA-based COTS card designed for a variety of applications, including beamforming, RADAR, satellite communications, and Software Defined Radio. The VP796 is a Virtex-7 VPX card with sixteen 14-bit A/D channels running up to 125Msps each. Its design provides the largest channel count in this frequency range and the most available onboard memory for real-time buffering of large data vectors. With the option to be conduction-cooled, the VP796 features 10GBytes of onboard DDR3 SDRAM that is tightly-coupled to the FPGA. The card also has the ability to synchronize analog signal sampling, making it an excellent choice for large channel count data acquisition and beamforming applications.

FEATURES:

- Virtex-7 XC7VX690T, XC7VX980T, XC7VX1140T
- Sixteen 14-bit A/D channels – Linear Technologies 2175-14
- On board VCXO and clock distribution
- External clock input and output
- External trigger input and output
- SMA breakout cable
- 10GBytes of DDR3 SDRAM
- VPX VITA 46 Compliant
- UART over USB

ANSI/VITA 47	Air-cooled		Conduction-cooled	
	EAC4	EAC6	ECC1	ECC4
Operating temperature	0C to +55C	-40C to +70C	0C to +55C	-40C to +85C
Storage temperature	-40C to +85C	-50C to +100C	-40C to +85C	-55C to +105C
Humidity	95%	95%	95%	95%
Operating vibration	5Hz to 100Hz PSD = 0.04g2/Hz 100 Hz to 1000 Hz PSD = 0.04 gs^2/Hz 1000 Hz to 2000 Hz PSD decreasing at 6 dB/octave	5Hz to 100H PSD = 0.04g2/Hz 100 Hz to 1000 Hz PSD = 0.04 gs^2/Hz 1000 Hz to 2000 Hz PSD decreasing at 6 dB/octave	5 Hz to 100 Hz PSD increasing at 3 dB/octave 100 Hz to 1000 Hz PSD = 0.1 g2/Hz 1000 Hz to 2000 Hz PSD decreasing at 6 dB/octave	5 Hz to 100 Hz PSD increasing at 3 dB/octave 100 Hz to 1000 Hz PSD = 0.1 g2/Hz 1000 Hz to 2000 Hz PSD decreasing at 6 dB/octave
Operating shock	20g, 11 millisecond, half-sine or 20g, 11 millisecond, terminal sawtooth shock pulses in all three axes	20g, 11 millisecond, half-sine or 20g, 11 millisecond, terminal sawtooth shock pulses in all three axes	40g, 11 millisecond shock half-sine or 40g, 11 millisecond, terminal sawtooth shock pulses in all three axes	40g, 11 millisecond shock half-sine or 40g, 11 millisecond, terminal sawtooth shock pulses in all three axes
Operating altitude	-1500 ft to 60,000 ft (with airflow)	-1500 ft to 60,000 ft (with airflow)	-1500 ft to 60,000 ft	-1500 ft to 60,000 ft
Conformal coating	Optional	Optional	Optional	Optional

abaco SYSTEMS

VP796 Virtex™ 7 3U VPX *VITA 46 Compliant with 16 A/D 125Msps*

Specifications

FPGA and Software Support

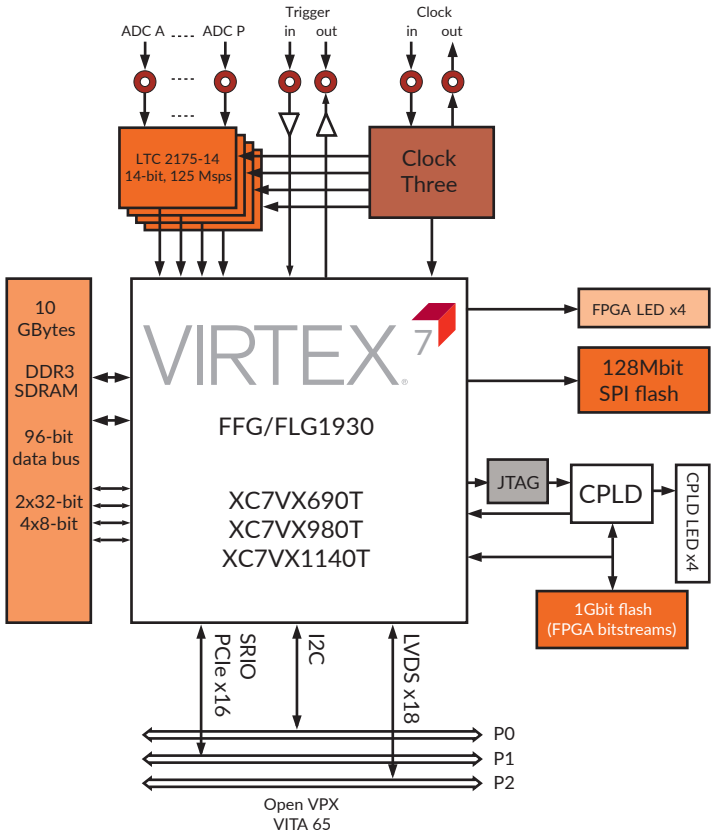
- Stellar IP - firmware design tool with automated code and bitstream generation
- Real time signal display
- Board control and monitoring tools
- Flash programming utility
- Confidence tests
- Host-side API
- Software program example
- Xilinx ISE project
- Test firmware and VHDL source code
- Drivers for Windows, Linux, VxWorks

User Selectable Build Options

- Configure the VP796 board to meet your requirements
- Your board will be built to the specifications you select in the part number options.
- Develop and deploy a complete, integrated system with Abaco Systems' FlexVPX 2/3 slot VPX backplane and single board computer option.

AS9100 Certified

Block diagram



Ordering information

Talk to us about your algorithmic requirements, Abaco Systems is a full-service firmware and software development house. We are a specialist at high performance FFT and Video Processing. Check with us, we may have IP Cores that meet requirements for your application, right off the shelf.

OpenVPX™ FMC MEMBER VITA Open Standards, Open Markets

WE INNOVATE. WE DELIVER. YOU SUCCEED.

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