

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

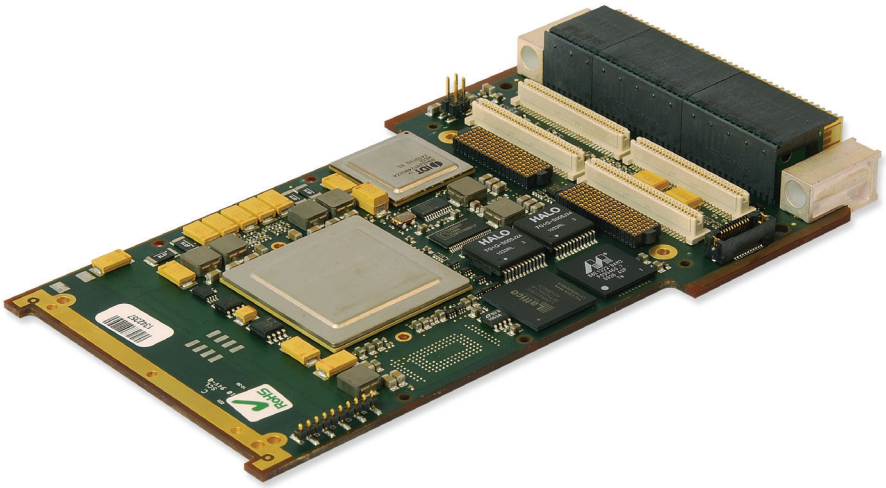
Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*



SBC312

3U VPX QorIQ P4080 based Single Board Computer

The SBC312 is the first QorIQ based product to join Abaco system's VPXtreme3 family of rugged 3U VPX Single Board Computers.

Based on the P4080 the SBC312 offers a huge leap in processing performance, providing up to eight processing cores within the power envelope of previous dual core boards. Combined with an extensive and flexible range of IO options, the SBC312 is ideal for a wide range of high performance Mil/Aero applications.

Features of the QorIQ P4080 processor

- System on Chip (SoC) processors with eight high-performance e500 cores built on Power Architecture Technology
- 45 nanometer technology delivers unprecedented performance per watt enabling power-efficient designs
- Quad and Octal-core options

Fully compatible with OpenVPX (VITA 65), the SBC312 offers dual high-speed fabric connectivity (10GigE and PCI Express) enabling a range of scalable solutions from single host to larger multiprocessor systems.

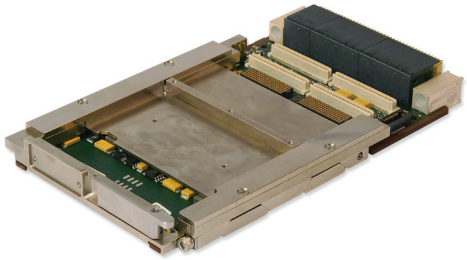
In addition the SBC312 supports a diverse I/O set that includes Gigabit Ethernet, COM ports, USB 2.0, SATA and GPIO.

Further incremental system resource expansion is provided an XMC/PMC capable mezzanine site which offers the option of having either XMC I/O or PMC I/O routed to the VPX backplane connectors.

Designed specifically for harsh environment applications the SBC312 is ideal for commercial, industrial, defense and aerospace applications where high reliability and survivability are a must. Available in five air- and conduction-cooled ruggedization levels, the SBC312 also offers VITA48 formats for 2-level maintenance (2LM) requirements.

The SBC312 is fully supported by comprehensive Deployed Test Software (BIT and BCS) with OS support planned for VxWorks®, LynxOS®, Open Source Linux®, and Integrity.

In addition the SBC312 is also supported by Abaco Systems innovative P2P software, which supports the implementation of PCI Express peer-to-peer connectivity.



FEATURES:

- 3U OpenVPX VPX Single Board Computer
- P4080 processor (eight e500mc cores up to 1.5 GHz)
- Dual-channel DDR3 (up to 4 GB)
- Up to 512 MB NOR Flash
- Up to 4 GB NAND Flash
- 512 kB MRAM (non-volatile storage)
- Two x4 PCIe Gen2 links from VPX P1 (option for one link to be configured for 10GigE)
- 1x PMC/XMC Site
- 2x 10/100/1000BASE-T
- 2x RS232/422 COM ports
- 2x SATA
- 2x USB 2.0
- 8x Single-Ended GPIO (5V tolerant)
- BMM (Board Management Microcontroller)
- VITA65 OpenVPX Compatible
- MOD3-PAY-2F2T

abaco SYSTEMS

SBC312 *3U VPX QorIQ P4080 based Single Board Computer*

Specifications

Processor Node
- Support for QorIQ P4080 1.5 GHz
- Eight e500 cores
- Double-precision floating-point support
- 2 MB shared Level 3 cache
- CoreNet internal fabric up to 800 MHz

DDR3 SDRAM
- Up to 4 GB DDR3 SDRAM with ECC (2 GB per Bank)

Flash Memory
- Up to 512 MB NOR Flash memory
- Protected BANC Boot Area
- 4 GB NAND Flash memory (8/16/32 GB on roadmap)

Fabric
- Two x4 PCIe Gen2 links from VPX P1, both capable of operating in non-transparent mode
- One link to be optionally configured as 10GigE [KX4])
- Each link can be optionally configured as four x1 PCIe

Gigabit Ethernet
- 2x 1000BASE-T (P1rear IO)

Serial I/O
- 2x RS-232/422 UART ports (P1/P2 rear IO)

USB
- 2x USB 2.0 (P1rear IO)

SATA
- 2x SATA (300MB/s) (P1rear IO)

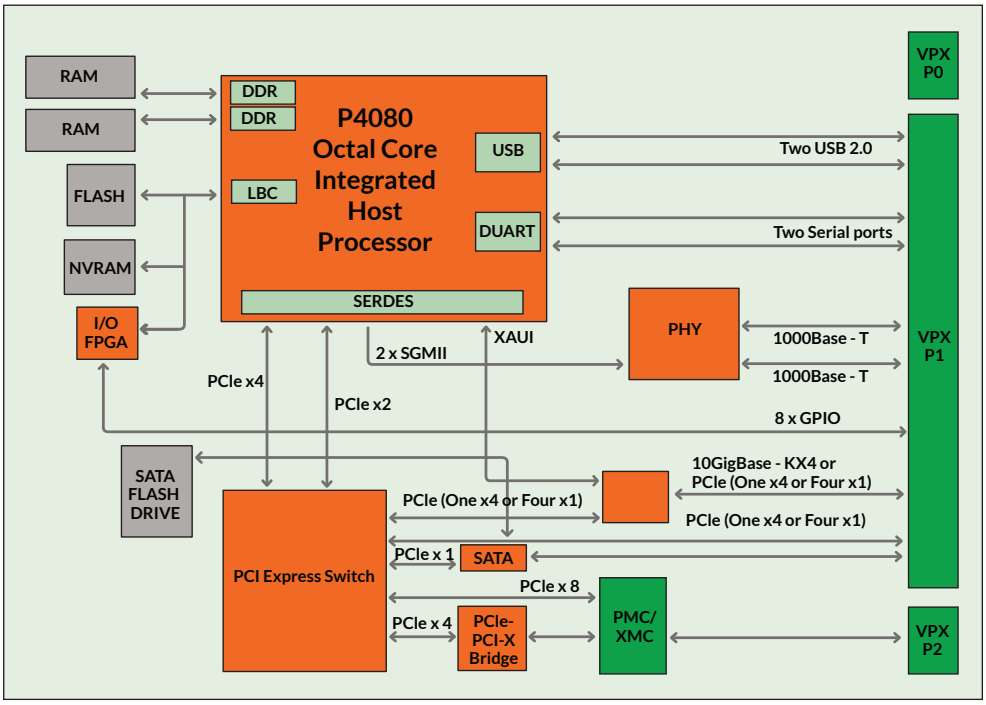
General Purpose I/O
- Up to 8 GPIO (P1rear IO), 5V tolerant GPIO each capable of generating an interrupt.
- PMC / XMC Extension Slot
- x8 PCIe XMC site (P2rear IO)
- PCI-X PMC site (P2rear IO)

NVRAM / Real-Time Clock / Watchdog / ETI
- 512kB non-volatile RAM (MRAM)
- Real-time clock with 1 second resolution
- 2x Watchdog timers (programmable 32-bit timer)
- Elapsed Time Indicator (record power cycles and on-time)

Temperature Sensor
- Onboard ambient temperature

Power Requirements
- +5V required
- +/-12V only if required by mounted PMC module

Block diagram



Environmental

	Level 1	Level 2	Level 3	Level 4	Level 5
Cooling Method	Convection	Convection	Convection	Conduction	Conduction
Conformal Coating	Optional	Standard	Standard	Standard	Standard
High/Low Temp	0 to 55°C	-20 to +65°C	-40 to +75°C	-40 to +75°C	-40 to +85°C
Operational	(300 ft/m)	(300 ft/m)	(600 ft/m)	At cold wall	At cold wall
Random Vibration	0.002g2/Hz*	0.002g2/Hz*	0.04g2/Hz**	0.1g2/Hz**	0.1g2/Hz**
Shock	20g***	20g***	20g***	40g***	40g***

**With a flat response to 1000 Hz, 6 dB/Oct roll-off from 1000 to 2000 Hz ** From 10 to 1000 Hz ***Peak sawtooth 11 ms duration

WE INNOVATE. WE DELIVER. YOU SUCCEED.

Americas: 866-OK-ABACO or +1-866-652-2226 **Asia & Oceania:** +81-3-5544-3973
Europe, Africa, & Middle East: +44 (0) 1327-359444
Locate an Abaco Systems Sales Representative visit: abaco.com/products/sales

abaco.com | @AbacoSys

©2018 Abaco Systems. All Rights Reserved. All other brands, names or trademarks are property of their respective owners. Specifications are subject to change without notice.

10/18 A-DS-1735

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP