

7 Slots, 3U VPX™ Dual Intel® Core™ i7 SBCs, Star Fabric Development System



APPLICATIONS

The SY VPX/507 is a centrally switched 3U VPX™ development system. This 7 slot system is configured to provide engineers with a practical, high quality development environment for 3U VPX applications. The SY VPX/507 is based on an EMC enclosure that provides 7 vertically mounted 3U slots on a VPX star fabric backplane, cooling fans mounted below the backplane and a 650W integrated power supply. To enable fast track

development, the system comes pre-installed with two 3U VPX 2nd generation Intel® Core™ i7 processor boards, associated RTMs, and fabric switch board (PCI Express® and 1000Base-BX). The system uses standard Concurrent Technologies products allowing easy progression from development to deployment.

HIGHLIGHTS

- 3U VPX™ Development System:
 - 7 vertically mounted 3U VPX slots
- SY VPX/507 VPX backplane provides:
 - 6 x 5HP (1 inch) 3U VPX slots
 - 1 x 5HP (1 inch) 3U fabric switch slot
 - 6 x Fat Pipe data plane configured as single star topology via fabric switch slot
 - 6 x Ultra-Thin Pipe control plane configured as single star topology via fabric switch slot
 - compatible with OpenVPX™ BKP3-CEN07-15.2.3-n backplane profile
- Pre-installed boards:
 - 2 x Intel® Core™ i7 VPX processor SBCs, each with 8Gbytes Flash Module and a Rear Transition Module
 - 1 x VPX Fabric Switch board (6 x data plane fabric interface (x4 PCI Express®) and 6 x control plane fabric interface (1000Base-BX))
- Embedded 650 Watt modular power supply:
 - 90-264V AC, 47Hz to 63Hz
- Each pre-installed VPX processor SBC supports:
 - 1 x DisplayPort interface
 - 1 x VGA graphics interface
 - 2 x serial ports
 - 3 x USB 2.0 ports
 - 2 x Ethernet channels
 - 1 x SerDes (1000Base-BX) channel
 - 2 x Serial ATA channels
- Supplied with Fabric Switch Configuration software:
 - used to remotely configure fabric switch board
- Optional Fabric Interconnect Networking Software:
 - allows applications to efficiently communicate with each other over backplane fabric
- Support for Linux®, Windows® 7, Windows® Embedded Standard 7, Windows® XP, Windows® XP Embedded, Windows® Server 2008, QNX® and VxWorks®

3U VPX Development System

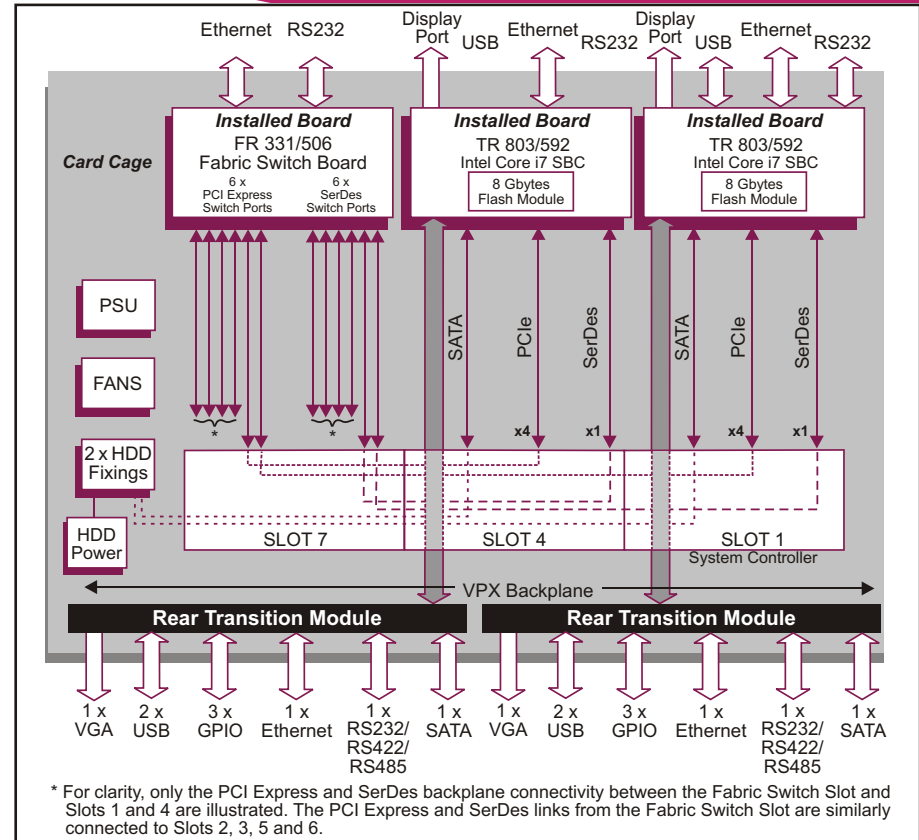
- 3U VPX™ Development System:
 - 7 vertically mounted 3U VPX 5HP slots
 - cooling air intake at the bottom of the system
 - air exhaust at top of the system
 - adjustable cooling fan speed, 600 lfm at full speed
 - 8HP removable HDD cage supporting 2 x 2.5-inch HDDs or 1 x 3.5-inch HDD, pre-wired
 - adjustable legs (fold or extend)
 - COTS chassis
- VPX backplane provides:
 - 1 x system controller slot
 - 1 x fabric switch slot
 - 5 x peripheral slots
 - 6 x Fat Pipe data plane configured as single star topology via fabric switch slot
 - 6 x Ultra-Thin Pipe control plane configured as single star topology via fabric switch slot
 - backplane compatible with OpenVPX™ (VITA 65) BKP3-CEN07-15.2.3-n profile

System Configuration

- pre-installed VPX processor boards:
 - 2 x TR 803/592 2.2 GHz Intel® Core™ i7-2655LE SBCs
 - system controller SBC uses payload slot 1
 - peripheral SBC uses payload slot 4
 - 2 x Rear Transition Modules (RTM)
- pre-installed VPX fabric switch board:
 - 1 x FR 331/506 PCIe/SerDes switch
 - data plane, 6 x ports x4 PCI Express® and
 - control plane, 6 x ports SerDes (1000Base-BX)
 - switch board uses slot 7
- slots available for VPX development:
 - 4 x peripheral payload and RTM slots

TR 803/592 VPX Intel Core i7 SBC

- utilizes 2.2 GHz Intel® Core™ i7 processor:
 - 4 Mbytes Last-Level on-die cache
- 8 Gbytes soldered DDR3-1333 SDRAM
- 8 Gbytes Flash module
- 1 x x4 PCI Express® data plane port
- 1 x SerDes (1000Base-BX) control plane port
- 2 x Gigabit Ethernet channels:
 - 1 x Ethernet channel via front panel
 - 1 x Ethernet channel via RTM
- 2 x serial ports:
 - 1 x RS232 port via front panel
 - 1 x RS232/RS422/RS485 port via RTM
- 3 x USB 2.0 interfaces:
 - 1 x USB port via front panel
 - 2 x USB ports via RTM
- DisplayPort connection on front panel:
 - resolutions up to 2560 x 1600 @ 60 Hz
 - supports VGA (not DVI-D) adaptors
- VGA graphics interface via RTM:
 - resolutions up to 2048 x 1536 @ 16M colors
- 2 x SATA channels via RTM (one pre-wired to HDD cage)
- 3 x GPIO signals via RTM
- watchdog timer and Long Duration Timer
- support for future VITA 46.11 System Management Specification
- OpenVPX compliant
- COTS board



FR 331/506 VPX Fabric Switch Board

- 6-port VITA 46.4 data plane switch:
 - x4 PCI Express (Gen 1 or Gen 2)
 - option to configure setup via RS232 port
 - 6-port VITA 46.6 control plane switch:
 - 1000 Base-BX
 - unmanaged switch
 - option to configure setup via RS232 port
 - Gigabit Ethernet channel via front panel
 - EEPROM storage for switch configuration data
 - OpenVPX compliant
 - COTS board
- ## Software Support
- support for Linux®, Windows® 7, Windows® Embedded Standard 7, Windows® XP, Windows® XP Embedded, Windows® Server 2008, QNX® and VxWorks®:
 - operating system not supplied
 - Fabric Switch Configuration (FSC) software:
 - used to remotely configure fabric switch
 - remote computer requires Windows® or Linux® to support the FSC software
 - see datasheet SW FSC/001
 - system supplied with FSC software
 - Optional Fabric Interconnect Networking Software (FIN-S):
 - allows applications on multiple processor boards to efficiently communicate with each other over the PCIe fabric
 - see datasheet SW FNS/nnn
 - FIN-S is ordered separately
 - Optional Linux Board Support Package (BSP):
 - provides software support for the two TR 803/592 Single Board Computers (SBCs)
 - BSP is ordered separately
 - contact your local sales office for further details

Power Supply

- integrated 650W power supply:
 - +12V output (10A max)
 - +5V output (95A max, 0A min)
 - +3.3V output (40A max, 0A min)
 - -12V output (6A max, 0A min)
 - AC 90-264V, 47Hz to 63Hz input

Environmental Specification

- operating temperatures:
 - +5°C to +40°C (operating)
 - 0°C to +45°C (operating from optional 2.5" or 3.5" SSD only)
 - -25°C to +65°C (storage)
- relative humidity, non-condensing:
 - 10% to 90% (operating)
 - 5% to 95% (storage)

Mechanical Specification

- chassis weight including pre-installed boards is 10.3kg (22.7lbs)
- 5HP (1.0 inch) backplane slot pitch supports:
 - 1.0 inch modules compliant with IEEE 1101.10 as per VITA 46.
- chassis dimensions:
 - total chassis height is 4U
 - w 483mm (19.0 inch) x d 329mm (13.0 inch) x h 198mm (7.8 inch) - with legs folded h 248mm (9.8 inch) - with legs extended

Safety

- PCBs (PWB) manufactured with flammability rating of 94V-0

ORDERING INFORMATION

Order Number Product Description (Hardware and Software)

SY VPX/507-10 3U VPX™ Development System with four empty VPX slots (includes two VPX 2.2 GHz Intel® Core™ i7 processor SBCs, VPX Fabric Switch board and Fabric Switch Configuration software (FSC))

For accessories please contact your local sales office.