

Intel® Processor Based 7-Slot 3U VPX™ Gen 3 System

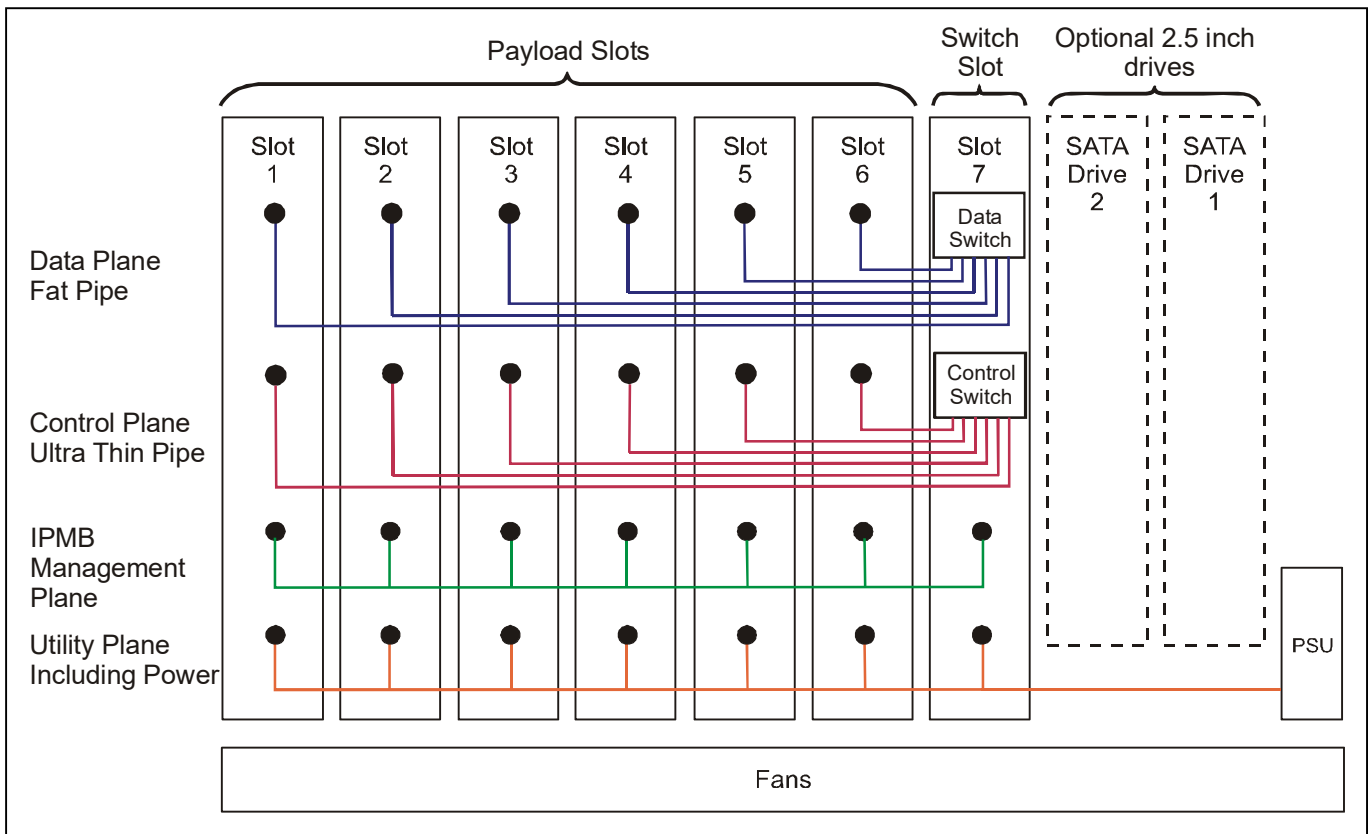
Key Features

SY TR1/527 is designed to allow customers to start developing 3U VPX™ solutions based on a range of Intel® processor boards.

- Supplied with built in AC power supply, backplane and cooling fans for ease of use
- Latest generation backplane with options for a switch and up to 6 payload boards
- To suit application requirements, options include a processor board based on an Intel® Xeon®, Intel® Core™ or Intel® Atom™ processor:
 - ➔ board support packages available for popular operating systems
 - ➔ optional software packages to improve security, boot times and backplane communication dependent on processor selection
- Optional PMC/XMC carrier board for user I/O modules



Option Example: Empty Development System
(without fabric switch and processor board)



Ehlbeek 15a
30938 Burgwedel
fon 05139-9980-0 www.powerbridge.de
fax 05139-9980-49 info@powerbridge.de

Concurrent Technologies Plc 4 Gilberd Court, Colchester, Essex, CO4 9WN, UK
Tel: +44 (0)1206 752626
Concurrent Technologies Inc. 400 West Cummings Park, Suite 1300, Woburn, MA 01801, USA
Tel: (781) 933 5900
email: info@gocct.com http://www.gocct.com

3U VPX Development System

- 3U VPX™ Development System:
 - 7 vertically mounted 3U VPX 5HP slots
 - option for pre-installed fabric switch board
 - option for pre-installed Intel processor based board
 - 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
 - empty 8HP removable mass storage drive carrier cage supporting either 2 x 2.5-inch drives or 1 x 3.5-inch drive (storage drives supplied by user)
- VPX backplane provides:
 - 1 x fabric switch slot (SLT3-SWH-6F6U-14.4.1)
 - 6 x payload slots (SLT3-PAY-2F2U-14.2.3)
 - system controller slot configured to slot 1 (can be reconfigured by user)
 - 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-CEN07-15.2.3-4 profile
- all pre-installed processor boards include:
 - on-board SATA Flash Module for application software
 - software support packages
 - Rear Transition Module (RTM)
- slots available for VPX development boards:
 - 6 x payload slots (with RTM slots)
- contact your local Concurrent Technologies sales office for further details on all system options

Example: Empty Development System

- option for empty system (chassis) without fabric switch and without processor board

Example: System with Fabric Switch Only

- option for PCI Express data plane with pre-installed VPX fabric switch (up to Gen 2)
- option for PCI Express data plane with pre-installed VPX fabric switch (up to Gen 3)
- option for Ethernet 10GBASE-KR data plane with pre-installed VPX fabric switch

Example: PCI Express (Gen 2) System

- option for PCI Express data plane with pre-installed VPX fabric switch (up to Gen 2) and choice of a pre-installed processor board:
 - 1 x TR D24/512 board (4-core Intel Atom™ processor)
- plus option for a VPX PMC/XMC carrier board (TR XMC/501)
- plus option for a VPX XMC carrier board (TR XMC/511)

Example: PCI Express (Gen 3) System

- option for PCI Express data plane with pre-installed VPX fabric switch (up to Gen 3) and a choice of a pre-installed processor board:
 - 1 x TR E54/571 board (6th generation 4-core Intel Xeon processor)
- plus option for a VPX PMC/XMC carrier board (TR XMC/501)
- plus pre-installed VPX XMC carrier board (TR XMC/511)

Example: Ethernet 10GBASE-KR System

- option for Ethernet 10GBASE-KR data plane with pre-installed VPX fabric switch and choice of a pre-installed processor board:
 - 1 x TR C48/582 board (System on Chip based on an 8-core Intel Xeon processor D-1500, 32G DRAM)
 - 1 x TR G4C/543 board (System on Chip based on a 12-core Intel Xeon processor D-1500, 64G DRAM)
- the option for the VPX PMC/XMC carrier board is not supported (because PCI Express is required)

Software Support

- supports Linux, Windows and VxWorks :
 - proprietary Board Support Package
 - operating system not supplied
- optional Fabric Interconnect Networking Software (FIN-S):
 - allows applications on multiple processor boards to efficiently communicate with each other over the fabric
 - see separate datasheet
 - FIN-S is ordered separately (processor board dependent)
- VITA 46.11 compatible Tier 1 Chassis Manager included in firmware on processor board
- processor board options are also available for security, Built-In-Test (BIT) and faster boot loading
- 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)
 - -25 C to +65 C (non-operating)
- relative humidity, non-condensing:
 - 10% to 90% (operating)
 - 5% to 95% (non-operating)

Mechanical Specification

- empty chassis weight is 19.4 lb (8.8 kg):
 - for pre-installed boards refer to their technical reference manual
- 5HP (1.0-inch) backplane slot pitch supports:
 - 0.8-inch and 1.0-inch
 - IEEE 1101.10 as per VITA 46.0
- chassis dimensions:
 - total chassis height is 4U
 - width 19.0-inch (483mm) x depth 13.0-inch (329mm) x height 7.8-inch (198mm) (legs retracted) height 9.8-inch (249mm) (legs extended)

Safety

- PCBs (PWB) manufactured with flammability rating of UL94V-0

Optional Accessories

TR XMC/501 VPX PMC/XMC Carrier

- optional PMC/XMC carrier board:
 - uses any payload slot
 - x4 PCIe interface (up to Gen 2)
- PMC site supports:
 - 32/64-bit, 33/66MHz PCI bus
 - 64-bit PCI-X bus up to 133MHz
 - 5V and 3.3V signaling
- XMC site supports:
 - x4 PCIe interface (VITA 42.3)
 - +5V VPWR
- front panel I/O
- rear I/O options via PMC (Pn4) or XMC (Pn6) connector:
 - rear I/O mapping (VITA 46.9)
 - optional Rear Transition Module available

TR XMC/511 VPX XMC Carrier

- optional XMC carrier board:
 - x4 PCIe interface (up to Gen 3)
 - using data plane supported in any payload slot
- XMC site supports:
 - x4 PCIe interface (VITA 42.3)
 - +5V VPWR or +12V VPWR
- front panel I/O
- rear I/O via XMC (Pn6) connector:
 - rear I/O mapping (VITA 46.9)
 - optional Rear Transition Module available