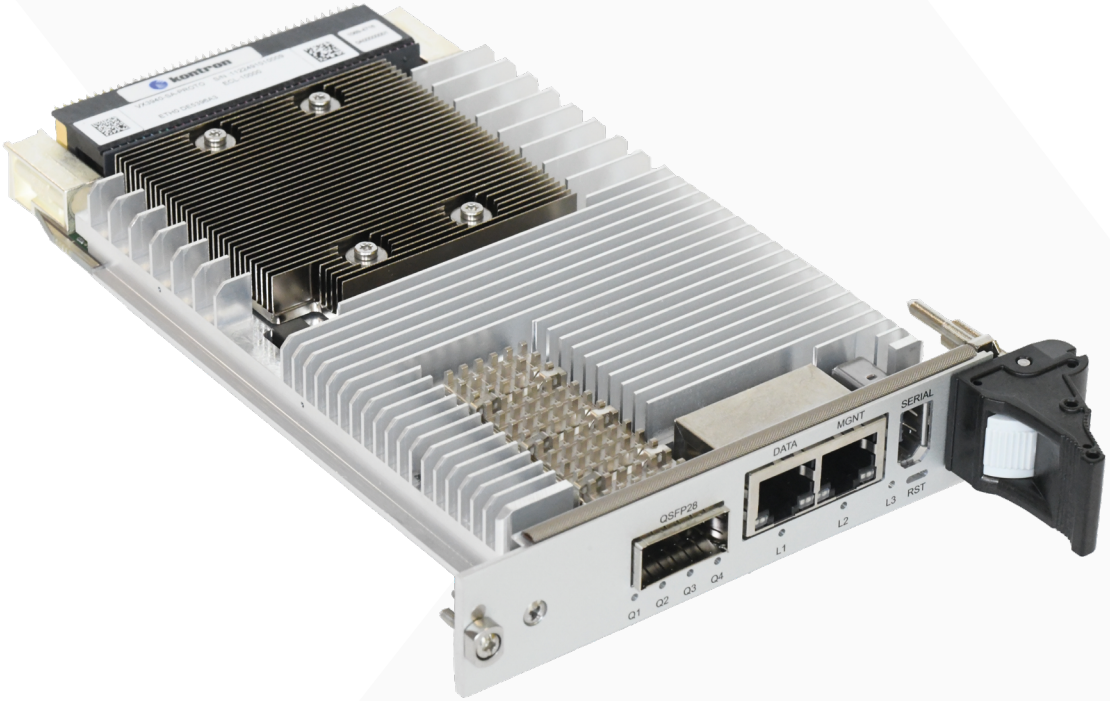
VX3940

10G/40G/50G Ethernet L2/L3 Network Switch



OpenVPX 10/40/50 Gigabit Ethernet Switch

- High End Low Power L2/L3 switch for harsh environments
- Line Rate sustained for all packet sizes
- Dual 50G Ethernet uplinks
- Developed in alignment with the SOSA™ Technical Standard
- Air-Cooled and Conduction-Cooled builds

kontron

Product Highlights

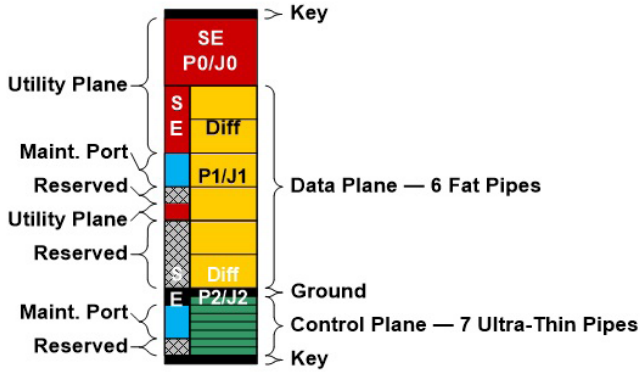
VX3940 Fully Managed L2&L3 Switching and Routing

Kontron's VX3940 is a fully managed layer 2&3 1/10/40/50 Gigabit Ethernet Switch series. It provides versatile feature support by using highest integration of Ethernet switch silicon. The VX3940 is designed for long-term programs and harsh environments, for applications requiring outstanding bandwidth and communication safety.

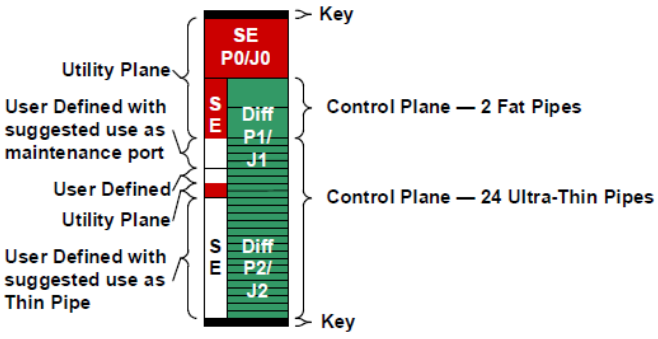
The VX3940 is designed in alignment with the SOSA™ Technical Standard, as well as being compatible a range of OpenVPX profiles. Up to 32 10GigE or 8 40GigE ports (or combination of the two) are supported on the VPX backplane. Furthermore, 4 out the 10GbE can be configured as 25GbE or 2 50GbE links.
The Air-cooled version of the VX3940 features a front QSFP28 cage for the support of up to four 25GbE or two 50GbE links. 40Gbe or four 10Gbe links is also supported.
The VX3940 Rugged Conduction cooled version is a Plug-in unit according to VITA 48.2 Type 2, Secondary Side Retainer. It can operate at up to 85 °C card edge temperature according to VITA 47.

Compatibility with SOSA & Open VPX:
The VX3940 is available with the following SOSA and VITA65 OpenVPX Profiles:

Typical demanding applications include:
- MOD3-SWH-6F1U7U-16.4.15
- MOD3-SWH-2F24U-16.4.3-4



MOD3-SWH-6F1U7U-16-4-15



MOD3-SWH-2F24U-16.4.3-4

Extra CPU to avoid limitations
The Kontron design is equipped with a powerful QorIQ® LayerScape family processor, not relying on the low performance processor integrated into the switch silicon; in particular, performance of the management systems, response times on SNMP requests are greatly improved. Also, the CPU makes VX3940 ready for future upgrades and extensions, which is important for the long term switches.

Full L2/L3 Management
The VX3940 can be monitored via SNMP. A comprehensive command line interface provides easy management and remote configuration by either serial or network interface. Supported features are: IPv4/optionally IPv6 forwarding & multicast, routing & switching, Quality of Service, VLANs, Spanning tree (STP, RSTP, MSTP, PVST, RPVST) time synchronization using 802.1AS, access control, extended user management and many more.

Management via SNMP, Command Line (Telnet, SSH)
- In-band
- Out of band via Ethernet or RS232

IPMI version 1.5, Power On Self Test
DHCP server, relay and Boot media supported
NTP server feature
Reliable software, field upgradable
Dual boot images with roll-back capabilities
Advanced management monitoring features

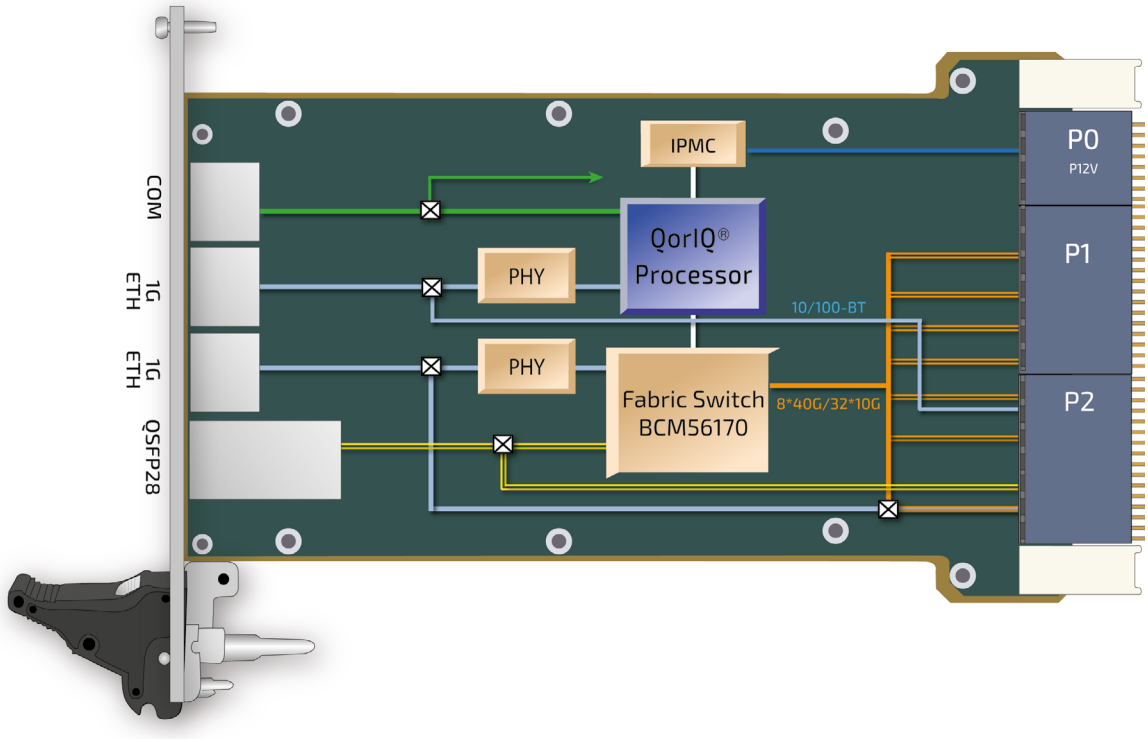
ETHERNET BRIDGING PROTOCOLS including:
- Link aggregation (802.3ad)
- VLANs (802.1Q)
- QoS (IEEE 802.1p)
- Spanning tree (802.1s, 802.1d, 802.1w, PVST, RPVST)
- Flow control (802.3x)

ETHERNET ROUTING PROTOCOLS including:
- Static routing
- VLAN/Port based routing
- GARP/GVRP, GMRP
- ARP, ICMP, OSPF, RIP, VRRP, DVMRP
- DHCP/Bootp relay
- BFD detection

ENHANCED FEATURES:
- Egress ACLs, IP ACL support
- Auto VoIP
- IGMP snooping & proxy support
- Startup configuration configurable
- Watchdog

Health Management
The VX3940 features an Intelligent Platform Management Controller (IPMC) interfaced to the VPX Management Plane for the support of system health management and control application.

Block Diagram



Ordering Information

ARTICLE	PART NO.	DESCRIPTION
VX3940-SA-A002110	1070-3571	3U SWITCH-Air-Cooled 'SA' (0 °C to 55 °C) Port Scheme: 2x 50GBase-KR2/1x40GBase-KR4 (QSFP on FP) 1x 1000Base-T (RJ45 on FP), 5x 40GBase-KR4 (BP), 6x 10GBase-KR (BP), 1x 1000Base-T (BP) - VITA46.11 IPMC Controller Front I/Os: 1x QSFP28 cage and 2x RJ45 connectors (with management port) SLT3-SWH-2F24U-14.4.3 Slot Profile with 1000BASE-T on front and rear RTC Power sourced from battery Power-on Built-in Tests and TPM2.0 Secure Element - -
VX3940-RC4-D0F0010	1070-3574	3U SWITCH-Rugged Conduction-Cooled 'RC-4' (-40 °C to +85 °C) with conformal coating Port Scheme: 6x40GBase-KR4 (BP) 7x10GBase-KR (BP), VITA46.11 IPMC Controller, Front I/O: 1xRJ45 connector (management port), SLT3-SWH-6F1U7U-14.4.14 Slot Profile, RTC Power sourced from system VPX VBAT, Power-on Built-in Tests and TPM2.0 Secure Element - -

Your Contact

Kontron France

150 rue Marcelin Berthelot
ZI de Toulon-Est - BP 244
83078 Toulon Cedex 9
Tel.: + 33 4 98 16 34-00
sales.KFR@kontron.com

www.kontron.com

Global Headquarters

Kontron Europe GmbH

Gutenbergstraße 2
85737 Ismaning
Germany
Tel.: +49 821 4086-0
info@kontron.com

www.kontron.com

Copyright © 2023 Kontron. All rights reserved. All data is for information purposes only and not guaranteed for legal purposes. Information has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies. Kontron and the Kontron logo and all other trademarks or registered trademarks are the property of their respective owners and are recognized. Specifications are subject to change without notice. VX3940-20230327 - bmy

Authorized Distributor

wdlsystems.com

sales@wdlsystems.com

800-548-2319

919-545-2500

220 Chatham Business Drive
Pittsboro, NC 27312