

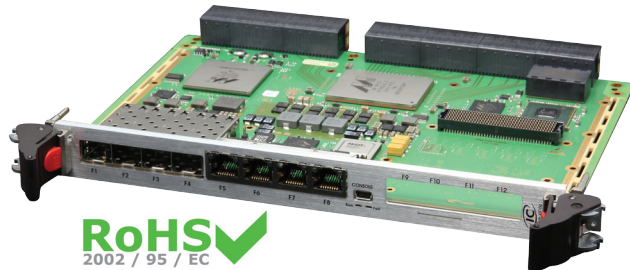
Ethernet Control & Data Plane Switch

6U OpenVPX Gigabit & 10/40Gigabit L3+ IP Router

4510a

- Speed, duplex, auto-negotiation, flow control and power management on all ports
- VLAN support / 802.1Q tagging
- Port mirroring
- Port rights management
- Static MAC address list
- Static IPM address list
- Port static authentication
- IEEE 802.1X authentication
- Ingress filtering
- Storm prevention
- QoS on all ports
- Ingress / egress access lists
- Rate limiting
- QoS remarking
- Static trunking / LACP
- STP / RSTP
- Ring
- IGMP/MLD snooping
- Login/password, key or certificate authentication
- Secure switch management by HTTPS, SSH or SNMPv3
- 802.1X port-based authentication
- Layer 2 802.1p User Priority tagging
- Layer 3 IP DSCP (Diffsev)
- Access Control Lists (L2, L3, L4)
- IGMP snooping (v1, v2, v3)
- MLD snooping (v1, v2)
- ICMP
- Proxy-ARP
- DHCP-relay
- NAT
- IPv4 routing (unicast/multicast)
- Static IP routing (unicast and multicast)
- RIPv1, RIPv2 (IPv4)
- RIPv6 (IPv6)
- OSPFv2 (IPv4) / OSPFv3 (IPv6)
- PBIT results
- Temperature information
- CPU load
- Switch state
- Global and detailed ports statistics
- VLANs statistics
- Bridge egress, ingress and RMON statistics
- Ingress and egress access lists statistics
- Rate limiting statistics
- Queues and ingress buffers counters
- IGMP snooping state by VLAN and by port
- MAC address table access
- IPM address table access
- STP/RTSP state
- ...

OpenVPX



Description

The **ComEth4510a** is a combined Control and Data Plane switch for demanding 6U OpenVPX Ethernet architectures.

The Ethernet packet processor of our well-proven **ComEth 43xxa** range is used for the Control Plane ; the Data Plane is implemented thanks to the Second-Generation Marvell Prestera CX platform, offering leading performance and port density with multiple 40 GbE/10 GbE configurations and full duplex line rate switching capability.

The two Ethernet switches are managed by a Multicore 64-bit PowerPC, offering two optional out-of-band 1000Base-T ports (front and rear) and traffic log recording on NAND Flash.

Control Plane:

- 16 * 1000BASE-BX ports available on P1 connector. █
- 4 * 1000Base-T ports on the front (RJ45)
- 4 ports available as :
 - SFP cages on the front for copper/fiber SFP modules, or
 - 1000Base-T ports on the rear (P6)

Data Plane:

- 16 * Fat Pipe ports routed on rear I/O (P2 to P5 connectors), █ configurable in 10GBase-KX4 (XAUI) mode

note: those lanes can also be configured to provide 16 * 40Gbase-KR4, 48 * 10GBase-KR, 48 * 1000Base-KX ports or mixed configurations (consult us for details)

Option: custom Mezzanines offer

- 2 * 10GBase-T (RJ45) ports available on the front and 2 * 10GBase-KX4 (XAUI) ports available on P6 connector (Control Plane), or
- 4 * 10GBase-T (RJ45) ports available on the front (Data Plane) (consult us for details)

The **ComEth4510a** also implements a micro-controller dedicated to the **management plan** (VITA 46.11).

The **ComEth4510a** is compliant with the 6U module definitions of the VITA 48.1. It is available in air-cooled (1") and conduction cooled (0.8" / without front IO) versions. (Please consult us for other configurations)

The **ComEth 4510a** is compliant with the **OpenVPX** slot profile (VITA 65):

MOD6-SWH-16U16F-12.4.5-4

