

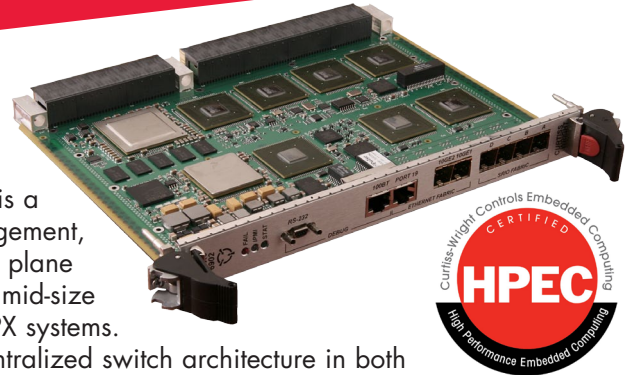
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Fact Sheet



VPX6-6902

Serial RapidIO® and Ethernet Combined Switch



- ◆ 6U OpenVPX™ centralized sRIO and Ethernet switch
 - Supports 24F, 16U20F and 20U19F profiles
- ◆ Combined management, control and data plane switch
- ◆ Enables easy implementation of scalable high-performance centralized DSP clusters for small, medium and large systems
- ◆ Available with sRIO switch fabric alone, or combined sRIO and Ethernet switches in a single slot
- ◆ 19/20/24 sRIO 4-lane (x4) ports to the VPX backplane + 4 ports to the front (AC only)
 - Each sRIO port is capable of operating at Gen-1 speeds of 1.25, 2.5 and 3.125 Gbaud or Gen-2 speed of 5.0 Gbaud
- ◆ 16/20x SerDes GbE and 2x 1000Base-T to the back + 2x 10GbE XAU1 and 1x 1000Base-T to front (AC only)
- ◆ Onboard management processor for Ethernet fabric
- ◆ Supports star and dual-star topologies
- ◆ 6U VPX form factor
- ◆ Air- and conduction-cooled available

The VPX6-6902 is a combined management, control and data plane switch for small, mid-size and large 6U VPX systems.

Supporting a centralized switch architecture in both star and dual-star topologies, the VPX6-6902 is available with Serial RapidIO® (sRIO) switching alone, or with both sRIO dataplane and Ethernet management/control plane switching all in a single VPX slot.

The VPX6-6902 sRIO switch fabric supports both Gen-1 (1.25, 2.5, 3.125 Gbaud) and Gen-2 sRIO (5.0 Gbaud) data rates. Each of its 28 sRIO ports operates in x4 lane mode, offering up to 16 Gbps throughput per port.

The VPX6-6902 Ethernet switch supports Gigabit Ethernet links, with up to 22 ports to the backplane, and an additional port to the front panel. Two 10 GbE (XAU1) ports are also provide on the front panel for switch expansion or backbone connections. A full line-rate non-blocking architecture, combined with a managed Layer 2 feature set, ensures maximum performance and flexibility.

The VPX6-6902 is available in a number of port configurations. For applications requiring only sRIO switching, the VPX6-6902 provides a total of 24 ports to the backplane and 4 ports to the front panel (AC only). Each sRIO port supports 1 and 4-port widths. This conforms to OpenVPX profile MOD6-SWH-24F.

For applications requiring both sRIO and Ethernet switching, the VPX6-6902 provides 19 or 20 sRIO ports to the backplane, and adds 16 or 20 GbE SerDes + 2x 1000Base-T interfaces to the backplane, along with 2x 10 GbE XAU1 and an additional 1000Base-T port to the front panel (AC only). These configurations comply with OpenVPX profiles MOD6-SWH-16U20F and MOD6-SWH-20U19F.



Learn More

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VPX6-6902

An onboard management processor can be used to manage and configure the switch. IPMI is also supported for system level management.

The VPX6-6902 allows systems integrators to architect small to large high-performance systems following the guidelines provided in the VITA-65 (OpenVPX™) systems specification. It can be used in multiple backplane profiles, with up to 24 Fat Pipes (FP) for sRIO and up to 20 Ultra-Thin Pipes (UTP) for SerDes Ethernet.

The VPX6-6902 complements a wide range of Curtiss-Wright Controls Embedded Computing VPX modules, including DSP and CPU single board computers, allowing systems integrators to implement extremely high-performance data, control and management plane systems.

Figure 1: VPX6-6902 sRIO and Ethernet Switch

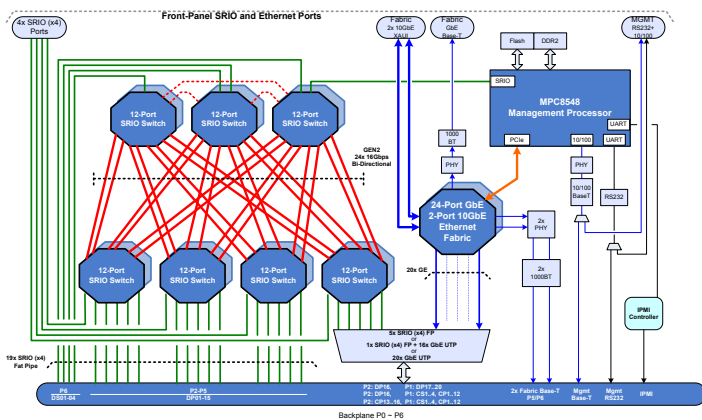


Table 2: Ordering Information

Part Number	Description
VPX6-6902-A04028	sRIO data plane switch with 28x sRIO (x4) ports (24 to backplane P1 to P6 and 4 to front panel), OpenVPX profile MOD6-SWH-24F, air-cooled, L0, 0.85" pitch with 1" faceplate
VPX6-6902-A04124	sRIO data plane switch with 24x sRIO (x4) ports (20 to backplane P2 to P6 and 4 to front panel), 16x SerDes GbE to backplane on P1, 2x 1000Base-T to P5/P6, OpenVPX profile MOD6-SWH-16U20F, 2x 10 GbE + 1x 1000Base-T to front panel, air-cooled, L0, 0.85" pitch with 1" faceplate
VPX6-6902-A04123	sRIO data plane switch with 23x sRIO (x4) ports (19 to backplane P2 to P6 and 4 to front panel), 20x SerDes GbE to backplane on P1/P2, 2x 1000Base-T to P5/P6, OpenVPX profile MOD6-SWH-20U19F, 2x 10 GbE + 1x 1000Base-T to front panel, air-cooled, L0, 0.85" pitch with 1" faceplate
VPX6-6902-A14028	sRIO data plane switch with 28x sRIO (x4) ports (24 to backplane P1 to P6 and 4 to front panel), OpenVPX profile MOD6-SWH-24F, air-cooled, L100, 0.85" pitch with 1" faceplate
VPX6-6902-A14124	sRIO data plane switch with 24x sRIO (x4) ports (20 to backplane P2 to P6 and 4 to front panel), 16x SerDes GbE to backplane on P1, 2x 1000Base-T to P5/P6, OpenVPX profile MOD6-SWH-16U20F, 2x 10 GbE + 1x 1000Base-T to front panel, air-cooled, L100, 0.85" pitch with 1" faceplate
VPX6-6902-A14123	sRIO data plane switch with 23x sRIO (x4) ports (19 to backplane P2 to P6 and 4 to front panel), 20x SerDes GbE to backplane on P1/P2, 2x 1000Base-T to P5/P6, OpenVPX profile MOD6-SWH-20U19F, 2x 10 GbE + 1x 1000Base-T to front panel, air-cooled, L100, 0.85" pitch with 1" faceplate

Note: Air-cooled L0 and L100 variants shown above. Contact sales for other ruggedization levels.

Table 1: Outlines the port combinations offered on the VPX6-6902

Part Number	OpenVPX Profile (MOD6-SWH)	Serial RapidIO Data Plane Switch				Ethernet Control Plane Switch				
		Total Number of Ports	Backplane		Front	GbE SerDes Backplane		1000Base-T Backplane P5/P6	10 GbE XAU Front	10/100/1000Base-T Front
			P2-P6	P1		P1	P2			
VPX6-6902-A14028	24F	28	20	4	4	sRIO Only - No Ethernet Switch				
VPX6-6902-A14124	16U20F	24	20	0	4	16	0	2	2	1
VPX6-6902-A14123	20U19F	23	19	0	4	16	4	2	2	1

Note: Air-cooled L100 variants shown above. Other ruggedization levels available.