

High Availability 1/10 Gigabit Ethernet Military Switch



VIPER

SWaP OPTIMIZED SMALL FORM FACTOR SWITCH/ROUTER PLATFORM

- » 4 port 1G/10G fiber optic transceivers; mixed SFP flexibility
- » 20 GbE ports with reconfigurable switching/routing personalities; maximize platform use cases
- » Full IEEE 1588 (PTP) Grandmaster and PPS capability; CPU-less hardware
- » NGVA & VICTORY Time Sensitive Networking (TSN) DDS support; evolvable with standards
- » Dual redundant & supervised power supply; with extended holdup capacity
- » High mechanical integrity monolithic PCB & I/O design; maximum reliability, minimum EMI
- » Security & safety supervision microprocessor with Battleshort capability





4 port 1G/10G fiber optic transceivers

- » Multiple combinations of data rate and functionality
- » (eg. 1 X GbE HSR Ring + 2 X 10 GbE RSTP ports)
- » Support multiple system requirements with the same equipment platform

20 GbE ports with reconfigurable switching/routing personalities

- » Multiple personalities using same platform optimizes sparing & in-service support
- » Low latency non-blocking FPGA-based architecture, adaptable and futureproof
- » CPU's released and available for user defined applications
- » 15 year core hardware silicon availability with solid refresh path

Full IEEE 1588 (PTP) Grandmaster and PPS capability; CPU-less hardware

- » Flexible, optimized hardware Grandmaster, PPS, timestamping & synchronization
- » Ensures operation with current and future 1588-aware systems

NGVA & VICTORY Time Sensitive Networking (TSN) DDS support; evolvable with standards

- » Adapts to latest standards revision with hardware implemented in FPGA
- » Ensures operation with current and future TSN-aware systems

Dual redundant & supervised power supply; with extended holdup capacity

- » Dual or single supply with vehicle, aircraft, shipboard DC/AC voltage compatibility
- » Thermal and electrical supervision and extended holdup with Battleshort override

High mechanical integrity monolithic PCB & I/O design; maximum reliability, minimum EMI

- » Integrated main PCB with flex cabling to I/O panel for superior signal and mechanical integrity
- » Board-To-Board connector-free stability maximizes reliability

Security and safety supervision microprocessor with Battleshort capability

- » System zeroization of volatile and non-volatile memory
- » Authentication TPM secure cryptoprocessor ensures platform integrity
- » Voltage and temperature monitoring, MPSoC active watchdog, full system recycling capabilities

SECURITY & RELIABILITY

- » Dedicated supervisory microprocessor
- » TPM platform authorization
- » Zeroization; volatile & non-volatile memory
- » Voltage & temperature monitoring
- » Oversized inline EMI/EMC power input filtering
- » Extended hold-up power capacity
- » MIL-STD-810G, 461G certified

PERSONALITY

- » HSR/PRP, MRP, S-HSR, TT-HSR high availability ethernet
- » PTP IEEE 1588v2 CPU-less hardware implementation, IRIG-B, NTP, PPS
- » Grandmaster PTP integrated capability
- » Redundancy support: HSR/PRP/MSTP/RSTP/STP/DLR
- » Time Sensitive Networking (TSN) supporting latest standards revisions
- » DDS over TSN supporting VICTORY, NGVA architectures
- » L3 multicast IP routing, L2 multicast filtering
- » AES-GCM wire speed encryption
- » Port-based VLAN support
- » Available CAN Bus integrated port