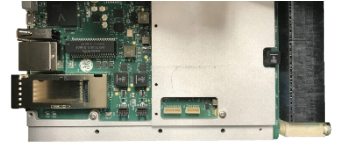


Versatile Network Switching



VNetS-3320 High-Bandwidth TSN Network Switch

Our next generation, state-of-the-art, ruggedized avionics high-bandwidth switch unit designed for safety critical applications when determinism matters



Flexible Network Configurations

- Switching core fabric provides a superset of switch functionality to support the widest possible range of customer applications
- Deterministic or non-deterministic network protocols
- Ethernet ports configurable to bandwidth needs
- Ruggedized for Commercial or Military aircraft usage



Designed to Open Standards

- HOST Compliant
- IEEE 802.1 Time Sensitive Network (TSN)
- IEEE P802.1DP/SAE AS-6675 TSN Aerospace Profile
- IEEE 802.3 Standard for Ethernet



Critical Functionality Inherent to Design

- Extensive traffic policing, segregation and priority mechanisms
- Ports can be used as mirror ports, flight test interfaces, or a variety of other functions
- Grand Master Clock functionality is able to sync to an external 1PPS GPS input or simulate a 1PPS output



Configuration Simplified

- Extensive TSN toolset for configuration of the switch & Network
- Delivered in pre-configured state <or> user configured during integration
- GE also offers a complete architecture and configuration toolset which includes networking (TSN, ARINC 664, Ethernet), ARINC 653 compute resources, and programmable Remote Data Concentrators



Photo: USAF



Performance specifications

Baseline Configuration

- HOST Compliant 3U VPX
 - VITA 65 SLT3-SWH-2F24U
- 200Gbps non-blocking bandwidth
- 2x Fat Pipes, each configurable for four lanes of:
 - 1000Base-KX or 10GBase-KR
 - Optional MACsec encryption
- 24x Ultra-Thin Pipes:
 - 12x 1000Base-KX
 - 12x 1000Base-KX or 10GBase-KR
- Geographical Address Position Inputs
- Non-volatile memory write protect
- 1x 1PPS bidirectional in/out-selectable
- 1x 25MHz bidirectional in/out-selectable
- 5V Primary power input
- ARINC 615A dataload
- Optional NETCONF/YANG configuration for development use

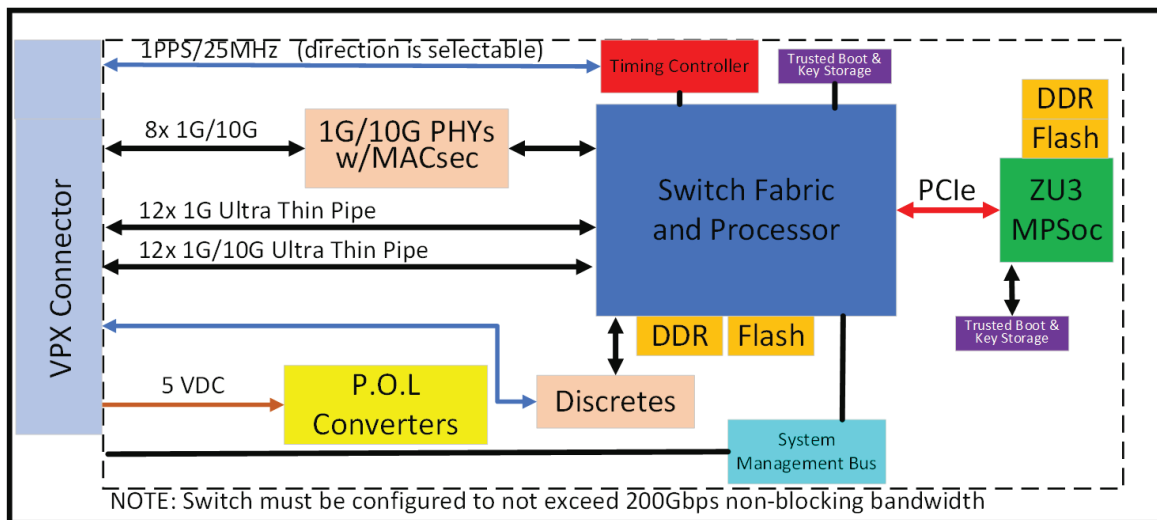
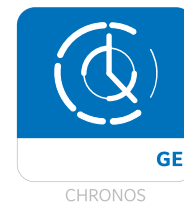
Features

- Deterministic Ethernet
 - IEEE 802.1 Time Sensitive Networking (TSN)
 - IEEE P802.1DP/SAE AS-6675 TSN Aerospace Profile
- IEEE 802.1AS high accuracy generalized Precision Time Protocol (gPTP) Grand Master Clock with Stratum 3E stability
- Full Layer 2 capability
- IPv4 layer 3 static forwarding/policing
- MAC Multi-Port Bridge & VLAN
 - 802.1D, 802.1P, 802.1Q

Tools

- GE Model Foundry System Architecture toolset
- Chronos TSN configuration tool
 - Full architecture generation and analysis
 - Graphical and Report outputs
 - Industry standard inputs as well as flexible inputs from modeling tools and manual input
 - Industry standard and flexible outputs

Feature	Attribute
Size (L x W x H)	VITA 46 3U Compliant
Operational Temperature	-40°C to +71°C ambient
Altitude	TBD
Relative Humidity	>95%
Cooling	Convection or Conduction



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