



GE Aerospace

# VNetS-3200

## High-Bandwidth TSN Network Switch

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

- 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



Representative picture, subject to change



## Specifications

### Baseline Configuration

12x 10GBase-SR Fiber Optic ports

- Option to upgrade to 25G

6x 10/100/1000Base-T copper ports

2x 10/100Base-T copper ports

All ports MACsec encryption capable

Trusted platform, including trusted boot

1PPS and 10MHz in and out

Deterministic Ethernet

- IEEE 802.1 Time Sensitive Networking (TSN)
- IEEE P802.1DP/SAE AS-6675 TSN Aerospace Profile
- IEEE 802.1AS 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

28V Primary power input - Dual

Aircraft dataloader

- ARINC 615A dataload
- NETCONF/YANG configuration for development

### 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

### Physical Characteristics

LRU form factor

Operational Temperature -40°C to +70°C

Altitude TBD

Relative Humidity >95%

Convention Cooling



CHRONOS

Time-Sensitive Networking Toolset

