

ASELPINE | ADNS

ASELSAN DETERMINISTIC NETWORK SWITCH

#Avionics



DETERMINISTIC ETHERNET SWITCH
TIME-SENSITIVE NETWORKING (TSN) & IEEE 802.3 STANDARD ETHERNET



aselsan

ASELPINE | ADNS

ASELSAN DETERMINISTIC NETWORK SWITCH

ASELSAN Deterministic Network Switch (ASELPINE ADNS) is a deterministic ethernet switch that supports both IEEE 802.3 Standard Ethernet Traffic and IEEE 802.1 Time-Sensitive Networking (TSN). ADNS is designed to be compatible with IEEE P802.1DP/SAE AS6675 TSN for Aerospace profile. ASELPINE ADNS will be compliant to the Synchronous Profile of IEEE 802.1DP TSN Aerospace profile.

Supported Standards

- IEEE Std 802.3-2018
- IEEE Std 802.1AS-2020
- IEEE Std 802.1Q-2018
- IEEE Std 802.1Qci-2017
- IEEE Std 802.1Qbv-2015
- IEEE Std 802.1CB-2017

Switching Capabilities

Configurable to operate as IEEE 802.3 Standard Ethernet or IEEE 802.1 Time-Sensitive Networking (TSN) Ethernet.

- Configurable Layer 2 (MAC Address) or Layer 3 (IP Address) Switching & IP Multicasting Support
- VLAN aware Forwarding and Filtering Support
- ICMP Error & Query Message Reporting
- Per-Stream Filtering and Policing in Each Ingress Port
- Null Stream Identification and Source MAC and VLAN Stream Identification

Time Synchronization

- PTP Relay Instance and Grandmaster PTP Instance Support
- External Port Configurations Support
- Up to 3 gPTP Time Domains Support
- 1PPS and BCD Time Code Support According to ICD-GPS-060B

Configuration

- ARINC 615A-3 Compliant Data Loading
- Selectable Configuration Modes via Configuration O/G Inputs

Monitoring & Maintenance

- SNMPv2c for Status Monitoring
- Maintenance & Mirroring Ethernet Support

Interfaces

- 12x 10/100/1000 Mbit/s Full Duplex Ethernet
- 4x 10/100 Mbit/s Full Duplex Ethernet
- 8x Addressing & Configuration O/G Input
- 1x 1PPS Input & 1x BCD_TIME_Code Input

Physical Specifications

- Dimensions: 110 mm (W) x 210 mm (H) x 180 mm (L)
- Weight: < 2.25 kg

Technical Specifications

- Power Input: 28 VDC (Nominal)
- Power Consumption: 20W (Nominal) / 25W (Maximum)
- Power Hold-up for Short Time Power Interrupts

Environmental Conditions

- Operating Temperature and Altitude: -40°C / +71°C, 55,000 ft
- Storage Temperature: -55°C / +85°C

Qualifications

- DO-160G



Specifications are subject to change without any notice. | All tolerances are within ±10%.