



### Rugged Five-Port Network Switch with IEEE 1588 Time



#### Applications

- Networked data acquisition
- Harsh environmental (thermal, shock, vibration) operation
- Time-coherent distribution over networks

#### Features

- Five-port 100BASE-T Ethernet network switch
- Ruggedized for airborne applications
- Each port can be operated at 100BASE-T
- Supports IEEE 1588 for distribution of timing information across network components
- Built-in IRIG-B time code reader and generator
- Built-in GPS receiver (operates up to 85° C)
- Provides for interconnection between data acquisition systems, control systems, recorders, gateways and TTC's NMS network management interface
- Supports Simple Network Management Protocol (SNMP) network management
- Provides a maximum data bandwidth aggregation of 500 Mbps
- 1.79 million packets-per-second non-blocking switching capacity
- Supports 4,000 multicast addresses
- Compatible with TTC network acquisition and networked recording systems
- Can synchronize IRIG time from 1588 time or 1588 time from IRIG time

#### Description

The NSW-5FT-TGE is a five-port Fast Ethernet switch with IRIG timing, a built-in GPS receiver and a real-time clock with battery backup. It provides packet switching and IEEE 1588 time distribution to support networked data acquisition components and systems. The switch is ruggedized for airborne applications and supports managed operation, allowing for dynamic configuration, statistics gathering and health monitoring using Simple Network Management Protocol (SNMP).

Expansion is achieved by linking multiple switches together, allowing for additional data acquisition units, recorders and network gateways. Each port can operate at 100 Mbps (100BASE-T) over copper wiring and the unit provides maximum data bandwidth aggregation of 500 Mbps, supporting 4,000 multicast addresses.

The NSW-5FT-TGE-2 shares the same mechanical design as the NSW-5FT-TGE-1, but is rated for operation between -40° C and +85° C ambient temperature.

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#### NSW-5FT-TGE Datasheet

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Management System  
AS9100C  
ISO 9001:2008