ES9910

20-port Rugged Ethernet Switch

MISSION DATA MANAGEMENT

ENERTEC

The ES9910 provides **highly-integrated, flexible, fully-managed LAN/VLAN connectivity** for embedded mission systems.

Safran Data Systems offers Embedded Information Management Solutions in a variety of rugged, versatile, scalable equipment and associated services, providing efficient, reliable, and affordable resources for **field/mission data acquisition, processing, storage, exploitation and dissemination, for on board operation manned or unmanned ground, air and sea vehicles.**

Mission System

ISR, Search & Rescue

Maintenance Network

FULLY MANAGED OPERATION
Supports IPv4/IPv6, VLAN, IGMP filtering

USER-CONFIGURABLE INTERFACE COMBINAISON
One 1000Base-SX port plus combinaison 1000Base-T and 100Base-T ports

QUALIFIED FOR HARSH ENVIRONMENT
DO-160, MIL-STD-704, -461, -810

ADVANCED QUALITY OF SERVICE
Per IEEE 802.1p

CONFIGURATION VIA DEDICATED ETHERNET PORT
RJ-45 connector

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ES9910

› TECHNICAL SPECIFICATIONS

General characteristics

Configuration.. Single Standalone Unit
Dimensions .... H 200 x W 256 x D 48 mm (9.7" x 10.1"x 1.9")
....excluding connectors and fixture protrusions
Weight .... < 2.5kg (5.5lb)
Cooling .... self cooling, no fan
Installation...................................... hard mounting, two locating holes
.... and two securing bolts
Interconnection .... MIL-DTL-38999 series 3, Quadrax contacts

Interface

Network

User-configurable interface combination:
    One optical fiber-based 1000Base-SX port, and
    4 x 1000Base-T + 16 x 100Base-T ports
Configuration/maintenance: dedicated Ethernet port (RJ-45 connector)

Power

Input Voltage .... 20-32 VDC, per MIL-STD-704A
Consumption...... 15-30 W, depending on number of ports in operation

Environmental conditions

Qualification testing per RTCA DO-160 and/or MIL-STD-810F

Operating temperature ....-40°C to +71°C
Storage temperature ....-50°C to +85°C
Humidity.. 5% to 98% R.H.
Operating altitude .... 0 to 50,000 ft
Operating acceleration .... up to 9 g. 6 dir.
Operating random vibration .... 7.8 gRMS, 3 axes
Operating shock .... 20 g, 11 ms, 6 dir.
.... 6 g, 20 ms, 6 dir.
Crash safety ....40 g, 11 ms
.... 20 g, 20 ms

    Salt Fog, Sand and Dust, Fungus resistance
    Waterproofness, Fluid contamination
    Solar radiation, Fire resistance
EMI-EMC testing per RTCA DO-160 and/or MIL-STD-461C/E

› OPERATION

No access to configuration through network ports
Full managed operation
Supports IPv4/IPv6 unicast and multicast
Input packet filtering at MAC address level and IP address level
Supports VLAN and associated frame tagging per IEEE 802.1 q
Supports IGMP filtering for multicast operation
Advanced Quality of Service (QoS) per IEEE 802.1 p
SNMP monitoring
Supports time transmission protocols (NTP or SNTP)
Minimum switching capacity: .... 32 Mpacket/sec
....(assuming 64 Bytes per packet)

› CONFIGURATION

Configuration via dedicated Ethernet port (RJ-45 connector)

Embedded Configuration server, accessible from standard Web browser, with password protection

Configuration editable and saved in PC/Windows environment, and uploadable to any ES9910 unit

User-configurable parameters:
► Network interface combination
► MAC Address commutation table
► Port operating mode (auto-negotiation ON/OFF, half/full duplex)
► Port input packet filtering mode (MAC or IP address level, iaw type of protocol, transfer direction, and port number/port range)
► VLAN operation (4k-entry table, filtering, protocol)
► Quality of Service (QoS)

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