## ESU Ethernet Switch Unit (12 Port)



The ESU is a highly reliable, feature rich, 12 Port Ethernet switch. The ESU adds switched ethernet functionality seamlessly to existing PDH networks.

The ESU is specifically designed to match the challenging environmental and power supply performance characteristics required in Dedicated Networks.

The ESU has twelve 10/100Base-T interfaces, using standard RJ45 connectors. The unit supports MDI/ MDX, so that cross-over cables are not needed.

The ESU delivers high performance Layer 2 Ethernet switching in a compact form factor.

Tag based VLANs (802.1q) are supported, allowing network segmentation without being restricted by physical connections. VLAN, access port, trunk port & filtered trunks ports are also supported, allowing network designers more flexibility.

Four levels of QOS are supported.

Advanced features such as rate limiting on the Ethernet ports is provided, preventing unpredictable network performance due to broadcast storms of malfunctioning equipment.

The Spanning Tree Protocol is supported on ports 1 to 4 to allow the ESU to be deployed in loop topologies thus providing redundant paths to protect against link failure.

The ESU can be used in existing PDH multiplexer equipment, where switched Ethernet is required. This eliminates the need for an external switch, with a separate power supply and management system.

With an increasing number of critical services migrating to Ethernet, the ESU has been designed with an extremely high MTBF and for operation in extreme temperatures.

The ESU can be managed locally via CLI or remotely using Telnet, SNMP or a Web Browser. These management interfaces can be supported over a separate VLAN thus offering a greater level of security for management traffic.

In addition, for those organisations with an existing HPOV management system, a plug-in is available to streamline the management of the ESU in a HPOV environment.

Full remote configuration using Telnet, SNMP and HTTP Protocols are available.

Software download also using TFTP is supported, thus reducing installation time.

A comprehensive set of SNMP traps and alarms are provided to assist fault management and isolation.

### **Technical Highlights**

- 12 x 10/100Base-T
- 802.1p, 802.1q
- Rate Limiting
- Spanning Tree Protocol (STP) Support
- Support for 4096 VLANS
- Remote Management via SNMP, Telnet, CLI, HPOV or Web Server
- -20 to -72 VDC Power Supply
- -5°C to +65°C Operation



# **Technical Specifications**



Model Order Code	P21020.01	Standards	IEEE 802.3 Ethernet
Mechanical Height Depth Width	233mm 160mm 50mm	IEEE IEEE IEEE RFC1 RFC1	IEEE 802.3 u Fast Ethernet IEEE 802.1 p VLAN Tagging IEEE 802.1 q Priority Queing IEEE 802.3 x Flow Control RFC1157 SNMP RFC1213 MIB II RFC854 Telnet RFC783 TFTP EN60950 Safety EN55022 Class A Emissions EN55024 Immunity EN50082-2 Generic Immunity
<b>Customer Interfaces</b> Ethernet	12x 10/100 Base-T (RJ45)		
Management Local Remote	CLI via Console Telnet, SNMP, Web Server, HPOV		
Security	Dedicated VLAN, Password Protection, Management ACL	EN300-386 Telecommunications Std EN61000-4-2 Electrostatic Discharge EN61000-4-3 Radiated Susceptibility EN61000-4-4 Electrical Fast Transistor EN61000-4-5 Surge Burst EN61000-4-6 Conducted Susceptibility EN60950 ETS 300 019-1-1 Operational ETS 300 019-1-2 Storage ETS 300 019-1-3 Transport	
Power Power Supply Feeds Power Consumption	-20 to -72 VDC Dual 18W		
Alarm Contacts	2x Relay outputs with current carrying capacity of 1A @ 24V		
MTBF	65 Years		
<b>Environmental</b> Operating Temperature Relative Humidity	-5 °C to +65 °C 5-90% (Non-condensing)		



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