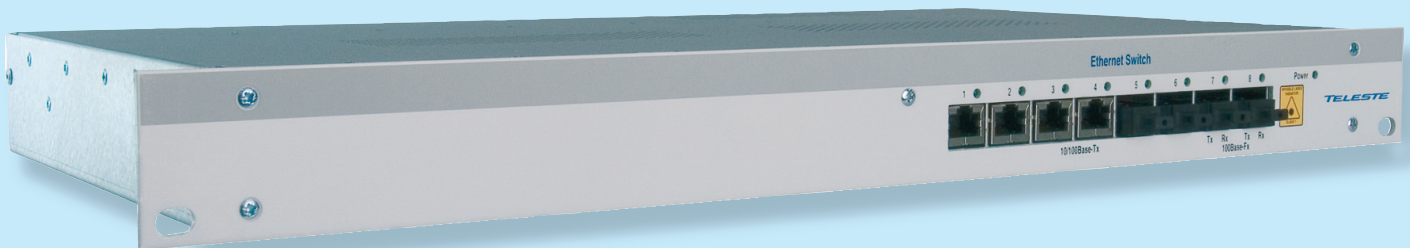
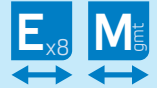


Eight port Fast Ethernet switch

IPS is a fully managed temperature hardened 19" 1U stand-alone fast Ethernet Switch designed to operate with video networking applications.



The IPS Fast Ethernet switches are designed for Ethernet networks in mission-critical real-time control applications as well as for LAN extensions in demanding environment.

The switch is available as an 8-port optical collection node to receive video streams over fibre optic network in a star or ring network as well as a standard Ethernet switch with CAT5 local ports and optical up-link ports.

The functionality and performance of the switch is optimised for video, which is much more demanding than the normal data communication over LANs. Special attention has been paid upon

the multicast functionality that offers significant bandwidth savings in closed IP networks.

Installations are made easy with the MDI/MDIX and auto-polarity supported by the 10/100Base-Tx local ports.

All ports can be equipped with either electrical 10/100Base-Tx or optical 100Base-FX interfaces. The choice of optics include multimode and single mode transceivers with different optical budgets.

The IPS switch supports fault tolerant LAN networks with fast recovery time using standard RSTP protocol with

automatic fallback to STP. When recovery times beyond those supported by standards are required, then a dedicated FRNT protocol can be used instead.

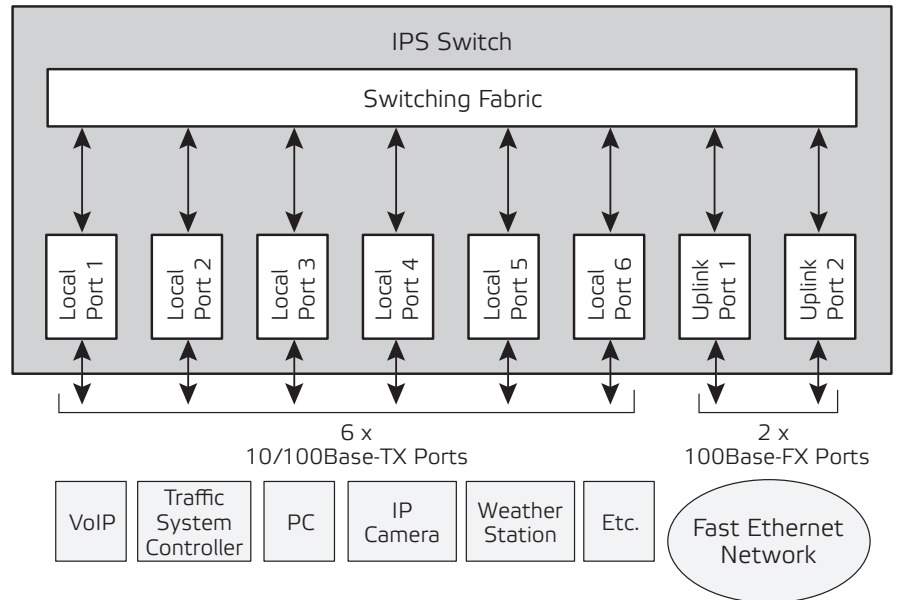
In addition to the three cornerstones of STP, VLAN and IGMP, the switch supports also functionality such as QoS, port mirroring, DHCP and SNMP.

The configuration of the switch is mastered with a Windows based configuration tool that automatically detects all IPS switches within the network.

Features

- 6 x 10/100Base-TX local ports
- Auto-negotiation and auto sensing of speed and full duplex per TX port
- 2 x 100Base-FX full duplex up-link ports
- FRNT v0 – redundant ring
- RSTP with STP fallback
- IGMP v1, v2 & v3 snooping
- VLAN support; port based VLAN with tag removal possibility
- SNMP v2c
- MAC address filtering per port
- QoS based on layer 2 (IEEE802.1p) and layer 3 (IP ToS)
- Low power consumption
- Password protected user access
- Feasible for temperature hardened operation

Block diagram



Technical specifications (Typical values unless otherwise stated, * = optional)

Models *			Protocols		
Basic Fast Ethernet Switch (6x10/100 local port + 2x100 uplink port)			802.3	10Base-T	
IPS3XX00XA	electrical uplink		802.3u	100Base-TX, -FX	
IPS3XX20XA	multimode uplink		802.1q	VLAN	
IPS3XX30XA	single mode 15 km uplink		802.1d	STP	
IPS3XX40XA	single mode 40 km uplink		802.1w	RSTP	
Optical Colletion Switch			802.1p	QoS	layer 2
IPS3XX222A	4x electrical + 4x multimode		802.3p	QoS	layer 3 (IP ToS)
IPS3XX242A	2x electrical + 6x multimode		802.3x	flow control	
IPS3XX323A	4x electrical + 4x single mode 15 km		IGMP	version 1, 2 & 3	
IPS3XX343A	2x electrical + 6x single mode 15 km		FRNT v0	redundant ring	proprietary protocol
IPS3XX626A	4x electrical + 4x single mode BIDI 1310/1550 20 km		DHCP	version 2c	IP address adquisition
IPS3XX646A	2x electrical + 6x single mode BIDI 1310/1550 20 km		Performance		
Ethernet Interface			Switching fabric	Non-blocking	layer 2
Electrical			MAC address table size	2048 kB	
Standard	10/100Base-TX	CAT5/CAT5e	QoS (Quality of Service)	High-speed non blocking QoS switch fabric with 4 traffic classes. 1Mbit shared frame buffer	
Connector type	RJ-45	CAT5 (UTP)	Management		
Optical			IP config tool	local via ethernet port	
Standard	100Base-FX	MMF & SMF	SNMP	remote via network	
MMF 1310 nm	2 km	2 fibres	General		
SMF 1310 nm	15 / 40 km	2 fibres	Supply voltage	10.5...18 V DC	
SMF BIDI 1310/1550	20 km	1 fibre	Power consumption	11 W	
Connector type	MT-RJ, LC	MMF	PSU connector type	4-pin removable screw terminal	
	LC	SMF	Dimensions (H x W x D)	1U x 19" x 236 mm (1U x 19" x 9.3")	
	SC	SMF BIDI	Weight	0.7 kg (1.5 lb)	
			Housing	Stand-alone, rack-mount	
			Operating temperature	-20...+70 °C (-4...+158 °F)	temperature hardened
			Storage temperature	-30...+70 °C (-22...+158 °F)	
			Humidity	95 %	non condensing
			Vibration	EN50130-5 1995	
			Damp heat	B52011 p2.1	
			EMC compatibility	EN61000-6-4, CE, FCC	
			Susceptibility	EN50130-4	
			Safety	EN60950	