SM24TBT4XPA

Enterprise Switches

MANAGED 2.5G POE++ SWITCH WITH IEEE 1588V2

(12) 10/100/1000Base-T ports + (12) 100M/1G/2.5GBase-T ports + (4) 1G/10G SFP+ ports

This Managed PoE++ Switch features IEEE 1588v2 Precision Clock Synchronization Protocol, (12) 10/100/1000Base-T ports, (12) 100/1G/2.5GBase-T ports, and (4) 1G/10G SFP+ ports to deliver better functionality and performance for enterprise networks. This switch also comes integrated with the Lantronix cloud-based Percepxion™ Software End-to-End Solutions platform, providing comprehensive device life cycle management, enterprise application integration, and data analytics, all through a single pane of glass.

With advanced Layer 2 features and a simple to navigate user interface, this switch offers performance and reliability at a cost-effective, secure, and reliable solution for the network edge.

Utilizing PoE enables users to connect, power and manage devices using a single Ethernet cable; simplifying installation and eliminating the need for additional power outlets.

This switch provides the benefits of ease of use in Security and Surveillance, Smart Building, and other applications. The switch also includes Device Management System Software (DMS), is accessible by Percepxion, or the local web manager, providing advanced configuration and management of all IP addressable devices in the network. This advanced management provides a graphical network topology, floor map creator, device map view, traffic monitoring, and network diagnostics for troubleshooting.

Features	Benefits
Energy Efficient Ethernet (IEEE 802.3az)	Save power and reduce total cost of ownership while building a green Ethernet networking environment.
Precision Clock Synchronization Protocol (IEEE 1588v2)	Lower bandwidth requirements & transports both frequency and time providing better performance.
IEEE 802.3at/af/bt	Switch provides up to 90 Watts per port and automatically detects PoE devices and their power class to simplify PoE deployments.
Always on PoE	Always on PoE ensures there is always PoE power to the attached PDs so a reboot or firmware upgrade to the switch will not disrupt power to the PDs allowing camera or wireless access points to continue functioning.
Advanced PoE Management	Includes PoE++ options to power IP devices with power-saving features like Power scheduling, PoE configuration, and Auto Power Reset to automatically monitor and reboot PD when no response to ICMP is received.
Map Views	**Topology Maps** Automatically creates map that provides end-to-end visibility of attached PDs with remote access into each device. **Floor Maps** Import building / floor maps into switch and place switches, cameras, access points, and other devices on map for complete visibility of networking equipment. **Google Maps™** Utilize Google Maps™ to located devices by state, city, address.
Cable Diagnostics	Remotely run diagnostics on copper cables to check continuity and distance of the cable. Determine distance of any open or short on the cable to have faster fault resolution.

End-to-End Solutions

LANTRONIX PERCEPXION

LEVEL Technical Services

Applications:

- IP surveillance, supplying power and data to IP cameras
- Connecting and remotely powering wireless access points
- Monitoring/managing attached powered devices from various vendors

Markets:

PoE Lighting

Smart Building

Security & Surveillance

Digital Signage

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Enterprise Switches

Specifications

General	
Interfaces	(12) 10/100/1000Base-T ports + (12) 100/1000/2500Base-T ports + (4) 1G/10G SFP+ ports
Standards	• IEEE 802.3 • IEEE 802.3u • IEEE 802.3z • IEEE 802.3ab • IEEE 802.3x • IEEE 802.3ad • IEEE 802.1D • IEEE 802.1w • IEEE 802.1s • IEEE 802.1Q • IEEE 802.1p • IEEE 802.1ad • IEEE 802.1AB • IEEE 802.3af • IEEE 802.3at • IEEE 802.3az • IEEE 1588v2
Media Interface Exchange	Auto MDI/MDIX for all copper ports
Performance	
Transmission Method	Store-and-forward
Forwarding Capacity (Mpps)	122
Switching Capacity (Gbps)	164
MAC Table	32K
Jumbo Frames (Bytes)	14000
PoE	
PoE Standards	802.3af, 802.3at, 802.3bt
PoE Ports	Ports 1-12 PoE/PoE+ Ports 13-24 PoE/PoE+/PoE++
PoE Configuration	Yes
PoE Scheduling	Yes
Auto Power Reset (APR)	Yes
Always on PoE	Yes
PoE Budget	740 Watts
Physical & Environmental	
AC Input Voltage	100-240 VAC
AC Input Frequency	50~60 Hz
Operating Temperature	0°C to +45°C
Operating Humidity	10% to 90% non-condensing
Storage Temperature	-20°C to +70°C
Dimensions (WxHxD)	17.4 x 1.7 x 14.76 inches 442 x 44 x 375 millimeters
Mounting	Rack mount or desktop mount
Certifications	
Certs	CE, FCC Part 15 Class A, UKCA
Safety	UL Pending
Warranty	5 Years

Layer 2 Features:

Spanning Tree Protocol (STP)	• Standard Spanning Tree 802.1d • Rapid Spanning Tree (RSTP) 802.1w • Multiple Spanning Tree (MSTP) 802.1s
Trunking	• Link Aggregation Control Protocol (LACP) IEEE 802.3ad
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs) • Port-based VLAN • 802.1Q tag-based VLAN • MAC-based VLAN • Management VLAN • Private VLAN Edge (PVE) • Q-in-Q (double tag) VLAN • Voice VLAN • GARP VLAN Registration Protocol (GVRP)
DHCP Relay	• Relay of DHCP traffic to DHCP server in different VLAN • Works with DHCP Option 82
IGMP Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters. Supports 1024 multicast groups
IGMP Querier	IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
IGMP Proxy	IGMP snooping with proxy reporting or report suppression actively filters IGMP packets in order to reduce load on the multicast router
MLD v1/v2 Snooping	Delivers IPv6 multicast packets only to the required receivers
Security	
Secure Shell (SSH)	SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
IEEE 802.1X	• IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions • Supports IGMP-RADIUS based 802.1X • Dynamic VLAN assignment
Layer 2 Isolation Private VLAN Edge	PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN. Supports multiple uplinks
Port Security	Locks MAC addresses to ports, and limits the number of learned MAC addresses
IP Source Guard	Prevents illegal IP address from accessing to specific port in the switch
RADIUS / TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
DHCP Snooping	Acts as a firewall between untrusted hosts and trusted DHCP servers
Loop Protection	Prevents unknown unicast, broadcast and multicast loops in Layer 2 switching configurations
ACLs	Supports up to 384 entries. Drop or rate limitation based on: • Source and destination MAC, VLAN ID or IP address, protocol, port • Differentiated services code point (DSCP) / IP precedence • TCP / UDP source and destination ports • 802.1p priority • Ethernet type • Internet Control Message Protocol (ICMP) packets • TCP flag
Quality of Service	
Hardware Queue	Supports 8 hardware queues
Scheduling	• Strict priority and weighted round-robin (WRR) • Queue assignment based on DSCP and class of service
Classification	• Port based • 802.1p VLAN priority based • IPv4/IPv6 precedence / DSCP based • Differentiated Services (DiffServ) • Classification and re-marking ACLs
Rate Limiting	• Ingress policer • Egress shaping and rate control • Per port
Management	
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
IEEE 802.1ab (LLDP)	• Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network • Support LLDP-MED extensions
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
Dual Image	Independent primary and secondary images for backup while upgrading
DHCP Server	Support DHCP server to assign IP to DHCP clients
Remote Monitoring (RMON)	Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
SNMP	SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)
Firmware Upgrade	Web browser upgrade (HTTP/ HTTPs) and TFTP
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	• HTTP/HTTPs; SSH • DHCP Client/ DHCPv6 Client • Cable Diagnostics • Syslog • Telnet Client; SSH • IPv6 Management • Percepxion™
Device Management System (DMS)	
Graphical Monitoring	• Topology view: Support intuitive way to configure and manage switches and devices with visual representation • Floor view: It's easy to drag and drop PoE devices and help you to build smart floor plan • Map view: Enhance efficiency to drag and drop devices and monitor surroundings on Google Map™

Ordering Information

Part Number	Description
SM24TBT4XPA-xx	(12) 10/100/1000Base-T ports + (12) 100M/1G/2.5GBase-T ports + (4) 1G/10G SFP+ ports (Includes 19" rackmount brackets).

Accessories	Description
SFP Modules	Check out our full portfolio of SFPs on Lantronix.com

Power Cord Included

To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: **SM24TBT4XPA-NA**

-xx = Country Code

-NA = North America	-LA = Latin America	-EU = Europe	-UK = United Kingdom
-SA = South Africa	-JP = Japan	-OZ = Australia	-BR = Brazil

Learn more at Lantronix.com/SM24TBT4XPA

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