

AOCM2400 SERIES

FAST ETHERNET ACCESS SWITCH



The PBN AOCM2400 series switching products provide high-performance and low-cost L2 access switches for FTTx and IPTV deployments with an extensive feature set. Remote web management of the switches makes it easy to set up the network topology and conduct related configurations. All PBN switches support wire-speed switching and packet filtration up to layer 4.

The AOCM2424 SFP-based device is an excellent fit as an access switch for small FTTx deployment scenarios. Other products in the AOCM2400 series with optional power-over-Ethernet (PoE) technology are widely used in the hospitality market, as well as in IPTV systems. With its clustering technology, this device allows you to easily expand as you grow while keeping management efforts the same.



Key Features

Performance

- 32 Gbps switching fabric, wire-speed L2 switching, packet forwarding rate up to 9.5 Mpps
- High port density and a maximum of 24x Fast Ethernet SFP ports + 2x 10/100/1000TX ports + 2x 10/100/1000TX/Gigabit SFP Combo
- SFP-based Gigabit optical-fiber ports support up to 80 km long-distance connections
- Optional Power-Over-Ethernet (PoE) for remote device powering (e.g. VoIP phones, Wi-Fi hotspots)

Powerful flow and broadcast management

- Broadcast storms are automatically detected and limited, which effectively prevents flooding of broadcast packets
- Flow control is available in full-duplex and half-duplex mode
- Support for IGMP snooping

Flexible VLAN configuration

- VLAN modes 802.1Q VLAN and port-based VLAN are supported
- QinQ and VLAN translation

High security

- SSTP and RSTP protocols
- MAC binding and security control at interface level
- L4 data filtration based on UDP or TCP
- Loopback detection on port basis with automatic resume

Enhanced QoS

- Advanced buffer management and 802.1p protocol
- Priority policies such as FIFO, SP and WRR
- Packet classifications based on ToS and DSCP fields
- Flexible interface priority and multiple QoS priority ratios configuration

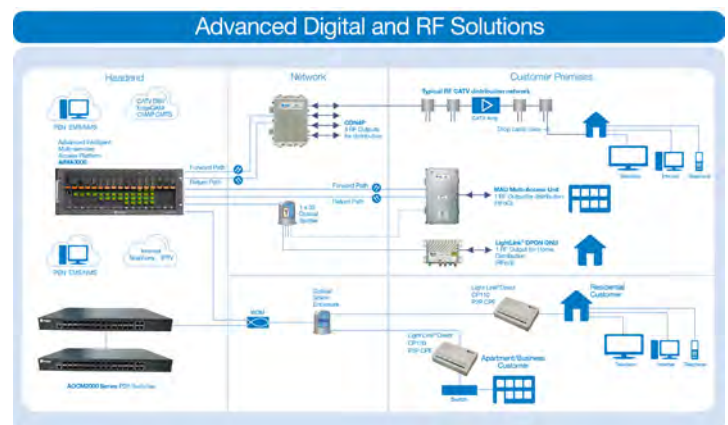
Universal management mode

- Open management access including Console port, Telnet, Web and SNMP
- Automatically identifies straight-through and crossover cables (MDI / MDI-X)
- Adopts cluster technology; supports device cascading; dedicated management through a unique IP address

Typical Application Diagram

The compact AOCM2400-series switches are ideal for use in small installations or greenfield deployments where cost efficiency is of the essence. This application diagram represents a typical hybrid HFC-FTTx scenario with CATV overlay utilizing AIMA3000 technology from PBN. Based on actual growth of P2P FTTx subscribers, the AOCM2400 switches can be deployed in a cascading fashion, which allows simple management as if there was only a single switch deployed.

For the CATV overlay components, the larger AIMA3000 carrier-grade RF headend solution can be scaled down based on operator needs to PBN's 1RU EDFA and LTE product line.



Specifications

Overview

CPU	RISC 200 MHz	
Flash	8 MB	
Memory	64 MB	
Forwarding rate	AOCM2408POE	4.2 Mpps
	AOCM2416POE	5.4 Mpps
	AOCM2424POE	9.5 Mpps
	AOCM2424	9.5 Mpps
Forwarding rate	AOCM2424TX	6.6 Mpps
	AOCM2424TX	6.6 Mpps
Backplane bandwidth	32 Gbps	
Switching mode	Store-and-forward	
Address table	8 K	
Queue buffer	64 MB	
802.1Q VLAN	1 ~ 4094	

Features

Spanning tree	802.1D (STP), 802.1w (RSTP), 802.1s (MSTP)
VLAN	Port-based VLAN, 802.1Q-tagged VLAN, QinQ, Private VLAN, Dynamic VLAN configuration through GVRP
Flow control	Back pressure for half-duplex connections, IEEE802.3x for full-duplex, CAR is supported, 64K step limitation on 100M ports, 8M step limitation on 1000M ports
Broadcast control	Threshold-based broadcast storm control
Multicast control	IGMP Snooping of multicast packets (v1/v2/v3)
Port channel	Dynamic and static LACP, up to 6 port groups supported, 8 ports per port-group
Port mirror	Flow-based and port-based mirroring
Cascading	Cascading of switches through any network interface with management through a single IP address (up to 32 switches)
Security features	IEEE 802.1x port authentication, IP ACL, MAC ACL and VLAN ACL (hardware-based), DHCP snooping, DHCP option 82, IP source guard, DAI and static/dynamic ARP prevention on the hardware, Remote RADIUS and TACACS+ authentication
QoS	Head Of Line (HOL) mechanism, Four transmission queues on each port are mapped to eight priority values of 802.1p, WRED, WFQ, SP and FIFO. Best-effort service, Differentiated service, Strict priority, Weighted round robin, First come first served, TOS re-labeling, RTS
Network management	SNMP v1/v2, RMON (groups 1, 2, 3, 9), Telnet, HTTP, NTP, SSH, PDP (Cisco-compatible)

General

Size (W x D x H)	AOCM2408POE	340 x 200 x 44 mm		
	AOCM2416POE	442 x 315 x 44 mm		
	AOCM2424POE	442 x 315 x 44 mm		
	AOCM2424	442 x 315 x 44 mm		
	AOCM2424TX	442 x 208 x 44.6 mm		
Mains power supply	110 ~ 240 Vac (auto-adaptable), 47 ~ 63 Hz, 1 A / 230 V			
Power consumption	AOCM2408POE	up to 170 W (including max. PoE power)		
	AOCM2416POE	up to 400 W (including max. PoE power)		
	AOCM2424POE	up to 400 W (including max. PoE power)		
	AOCM2424	45 W		
	AOCM2424TX	28 W		
Temperature and humidity	Working temperature	0 ~ 50 °C		
	Storage temperature	-40 ~ 70 °C		
	Humidity	0% ~ 90% (non-condensing)		
Carton dimensions and shipping weight	Model	Dimensions (W x D x H)	Weight (kg)	Units per carton
	AOCM2408POE	605 x 462 x 309 mm	18.3	6
	AOCM2416POE	605 x 462 x 309 mm	17.1	3
	AOCM2424POE	605 x 462 x 309 mm	20.7	3
	AOCM2424	605 x 462 x 309 mm	12.0	3
AOCM2424TX	525 x 430 x 350 mm	18.5	5	

Order Details

AOCM2408POE

AOCM2400 Access Series Switch, 8x 10/100 TX ports, 2x 10/100/1000 TX/Gigabit SFP combo ports, PoE Performance: 170 W (including PoE power supply) 8 ports at 802.3af or 5 ports at 802.3at power rating, MOQ: 6

AOCM2416POE

AOCM2400 Access Series Switch, 16x 10/100 TX ports, 2x 10/100/1000 TX/Gigabit SFP combo ports, PoE Performance: 400 W (including PoE power supply) 16 ports at 802.3af or 12 ports at 802.3at power rating, MOQ: 3

AOCM2424POE

AOCM2400 Ethernet Series Switch with 24x 10/100M TX ports, 4x 10/100/1000M Gigabit/SFP combo ports, PoE Performance: 400 W (including PoE power supply) 24 ports at 802.3af or 12 ports at 802.3at power rating, MOQ: 3

AOCM2424

AOCM2400 Access Series Switch, 24x FastEthernet SFP ports, 2x 10/100/1000TX ports, 2x 10/100/1000TX/Gigabit SFP combo ports, MOQ: 3

AOCM2424TX

AOCM2400 Access Series Switch, 24x 10/100M TX ports, 2x 10/100/1000TX/Gigabit SFP combo ports, MOQ: 3

SFP plug-ins

SFP-FE4931-LCPC	SFP plug-in, 100 Mbps, 20 km, TX = 1490 nm and RX = 1310 nm, LC/PC blue, PBN CP110 compliant
SFP-FE4931-SCPC	SFP plug-in, 100 Mbps, 20 km, TX = 1490 nm and RX = 1310 nm, SC/PC blue, PBN CP110 compliant
SFP-FE5531-LCPC	SFP plug-in, 100 Mbps, 20 km, TX = 1550 nm and RX = 1310 nm, LC/PC blue
SFP-FE5531-SCPC	SFP plug-in, 100 Mbps, 20 km, TX = 1550 nm and RX = 1310 nm, SC/PC blue
SFP-GE4931-LCPC	SFP plug-in, 1 Gbps, 20 km, TX = 1490 nm, RX = 1310 nm, LC/PC blue, for Gigabit SFP ports only
SFP-GE4931-SCPC	SFP plug-in, 1 Gbps, 20 km, TX = 1490 nm, RX = 1310 nm, SC/PC blue, for Gigabit SFP ports only

