AFI510-24G SERIES
26/28 PORT COMMERCIAL GRADE
MANAGED LAYER 2+ SWITCH

Commercial Ethernet Solutions

AFI's fully managed layer 2+ Ethernet switches provide 100Mbps, Gigabit and 10 Gigabit Ethernet switching for commercial network applications. Available with 24x RJ45 Gigabit ports supporting optional 30W PoE+ and 2x Gigabit SFP or RJ45/SFP Combo ports or 4x 1/10 Gigabit SFP+ Ports.

Gigabit up to x24	Gigabit up to x24	Gigabit up to x2	100/1000 up to x2	1/10 Gb up to x4	Managed Full	Secure 802.1x	Stacking Virtual	Temp 0 ~ +50°C	Mounting Rack/Surface	PSU Mains

[AFI510-24G Series]

/ OVERVIEW

AFI510 series layer 2+ managed Ethernet switches are designed for 19inch rack or desktop mounting within commercial grade applications. The AFI510-24G series has 24 Gigabit Ethernet RJ45 ports with optional IEEE 802.3at compliant 30W PoE+ and an additional 2 multi-rate SFP only or RJ45/SFP combo ports that support both 100Mb and 1Gb speeds or 4 multi-rate SFP+ ports that support 100Mb, 1Gb, 2.5Gb or 10Gb speeds for maximum flexibility.

AFI's industry leading virtual stacking capability greatly simplifies the installation and on-going site maintenance by providing the users with a single web GUI interface from which all switches within the virtual stack can be configured and monitored eliminating the need for multiple browser tabs and having to remember many IP management addresses. The virtual stack can be used between all AFI510 series models even when installed in dispersed physical locations.

The AFI510 series support a wide range of management functions as well as Rapid Spanning Tree, Multiple Spanning Tree and Ethernet Ring Protection Switching (ERPS) protocols for network redundancy. IGMP functionality is supported to handle the multicast traffic which is commonly used in IP CCTV deployments.

/ FEATURES

— 19inch 1U rack or desktop/shelf mount

— 0°C to +50°C temperature for commercial grade applications

— 90-264VAC mains power input

— Compliant with all IEEE 802.3 speeds (i/u/ab/z/ae)

— Dual Speed SFP or SFP+ ports (up to 10Gb Speed)

— Supports RSTP, MSTP, ERPS, SNMP v1-3 and IGMP v1-3

— Port trunk functionality available with LACP

— IEEE 802.1x port security enabled

— Supports 9.6K bytes jumbo frames

— Virtual Stacking supported

— Layer 3 Static Routing

— AFI 3 Year Support Warranty

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Phone: 800-323-0660
Email: mail@americanfibertek.com
745 43rd St South, St. Petersburg, FL 33711

Specifications.

Standards.

IEEE 802.3i	10Base-T
IEEE 802.3u	100Base-TX & 100Base-FX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-X
IEEE 802.3ae	10GBase-R
IEEE 802.3x	Flow Control
IEEE 802.3ad	Port Trunk with LACP
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.1D	Spanning Tree (STP)
IEEE 802.1w	Rapid Spanning Tree (RSTP)
IEEE 802.1s	Multiple Spanning Tree (MSTP)
IEEE 802.1p	QoS Priority Marking
IEEE 802.1Q	VLANs
IEEE 802.1v	VLAN Classification
IEEE 802.1X	Port Security
IEEE 802.3AB	LLDP
RFC1112	IGMP v1
RFC2236	IGMP v2
RFC3376	IGMP v3
RFC2030	Simple Network Time Protocol (SNTP)
RFC2131	Dynamic Host Configuration Protocol (DHCP)
ITU-T G.8032	Ethernet Ring Protection Switching (ERPS)

Hardware Features.

Architecture	Store-and-Forward
Switch Latency	<7μs
Switch Fabric	52Gbps (26 Port 1Gb Models)
	128Gbps (28 Port 10Gb Models)
Address Table	8K MAC Entries (26 Port 1Gb Models)
	32K MAC Entries (28 Port 10Gb Models)
Buffer Memory	4M bits (26 Port 1Gb Models)
	32M bits (28 Port 10Gb Models)
Jumbo Frames	9.6K bytes
CPU	400MHz
SDRAM	128Mb (26 Port 1Gb Models)
	1Gb (28 Port 10Gb Models)
Flash	16Mb
VLAN's	4K
IGMP Groups	1024
IPv6 MLD Groups	1024
Throughput	38.68Mpps (26 Port 1Gb Models)
	95.24Mpps (28 Port 10Gb Models)
Priority Queues	8
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit

Layer 3 Features.

Static Routing:		
Interfaces	8 Max (26 Port 1Gb Models)
	128 Max (28 Port 10Gb Models)
Routes	32 Max (26 Port 1Gb Models)
	128 Max (28 Port 10Gb Models)
DHCP	Server (IPv4)

Software Features.

Redundancy	STP, RSTP, MSTP
	ERPS (G.8032) (* 1Gb Models)
VLAN	802.1Q
	Port Based VLAN
	Private VLAN
	Voice VLAN
MVR	Multicast VLAN Registration
LACP	Dynamic Trunk
	Static Trunk
SFP Monitoring	DDM*
GARP/GVRP	
IGMP Snooping	v1/v2/v3 (8 VLAN's Max on 1Gb Models)
	v1/v2/v3 (128 VLAN's Max on 10Gb Models)
IGMP Querier	
MLD Snooping	IPv6 (8 VLAN's Max on 1Gb Models)
	IPv6 (128 VLAN's Max on 10Gb Models)
MLD Querier	IPv6
IPMC	64 Profiles (128 Rules Each)
Virtual Stacking*	Unlimited Units (All Speeds Supported)

QoS.

Class of Service	802.1p QoS & DSCP
Diffserv	RFC2474
Rate Limiting	Ingress / Egress
Priority Queue	WRR / Strict / Hybrid Priority

Security.

Port Security	MAC/IP Based
Storm Control	Rate Limiting
802.1x	RADIUS Authentication
TACACS+	
HTTPS/SSL	
BPDU Guard	
DHCP Snooping	
Loop Protection	
IP Source Guard	IPv4 & IPv6
IP Authorisation Managers	
Access (Policy) Control List (ACL L2/3/4)	
Custom User Rights	15 Levels (20 Users Max)

* Features available July 2020

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Specifications.

PoE Management.

Scheduling
Ping Watchdog with Reboot
Enable/Disable, Priority Level, Power Level

Management.

DHCP	Client / Relay (IPv4 & IPv6)
	Option 66/67/82
Event/Error Log	Syslog Client
Management Access	SNMP
	Web GUI
	Telnet / SSH v2.0 / CLI
Access Management	Filtering
SNMP	v1/v2c/v3
RMON	1/2/3/9 Goups
Port Mirroring	
Software Update	HTTP/HTTPS
Config Export /Import	
Dual Firmware Images	
SNTP	Client (IPv4 & IPv6)
Configuration	IPv4 & IPv6
LLDP	Link Layer Discovery Protocol
LLDP-MED	
sFlow	
Time Zone & Daylight Savings	
Cable Diagnostics	

Interface.

LED Indicators	1x Power
	SFP Link/Activity
	RJ45 Link/Activity
	RJ45 Speed
	PoE (PoE Models Only)
RJ45 Ports	24x 10/100/1000T(X) RJ45 or
(depending on model)	26x 10/100/1000T(X) RJ45
	with Auto MDI/MDI-X
SFP Slot	2x 100/1000FX SFP
SFP+ Slot	4x 100M/1G/2.5G/10G SFP+
Power	1x IEC C14 Socket
Serial Console	RJ45

Power.

Power Inputs	1
Operating Voltage	90-264V$_{AC}$
Power Consumption	30 Watts Max (without PoE Load)
Total PoE Budget	460W Max
PSE Modes	Mode A
PoE Enabled Ports	Ports 1-24

Packaging.

Shipping Weight	3.4kg / 7.50lb (Non-PoE Models)
	5.5kg / 12.13lb (PoE Models)
Dimensions	(W x D x H)
(Non-PoE Models)	500 × 310 × 91 mm
	19.69 × 12.20 × 3.58 in
(PoE Models)	515 × 417 × 96 mm
	20.28 × 16.42 × 3.78 in

Mechanical.

Housing	Metal
Dimensions:	(W x D x H) Excluding 19inch Brackets
(Non-PoE Models)	440 × 220 × 44 mm
	17.32 × 8.66 × 1.73 in
(PoE Models)	440 × 330 × 44 mm
	17.32 × 12.99 × 1.73 in
IP Rating	IP30 (Non-PoE Models)
	IP20 (PoE Models)
Installation	19inch Rack (1U) or Desktop
Weight	2.5kg / 5.51lb (Non-PoE Models)
	4.3kg / 9.48lb (PoE Models)

Environmental.

Operating Temp.	0°C to +50°C
Storage Temp.	-20°C to +80°C
Humidity	5% to 90% (non-condensing)
MTBF	125,897 hours (1Gb Non-PoE Models)
	105,225 hours (1Gb PoE Models)
	152,782 hours (10Gb Non-PoE Models)
	122,110 hours (10Gb PoE Models)
MTBF Standard	MIL-HDBK-217F GB
Heat Dissipation	102 BTU/h (Non-PoE Models)
	1672 BTU/h (with Max PoE Load)
Cooling	Passive Cooling (Non-PoE Models)
	2x Cooling Fans (Temp Controlled)
Airflow	Front to Back
Noise Level	0 dBA (Non-PoE Models)
	61 dBA (PoE Models)

Regulatory.

Safety		IEC/EN 62368-1
EMI		EN55032 Class A (CISPR 32)
		FCC Part 15B Class A
EMS	EN61000-4-2 (ESD)	EN61000-4-3 (RS)
	EN61000-4-4 (EFT)	EN61000-4-5 (Surge)
	EN61000-4-6 (CS)	EN61000-4-8 (PFMF)
		EN61000-4-11 (Dips)
Environmental		Reach, RoHS, WEEE

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Part Numbers.

1Gb Commercial Layer 2+ Managed Switches

AFI510-24G-2S	24 × 10/100/1000TX & 2 × 100/1000FX SFP
AFI510-24GAT-2C-P460	24 × 10/100/1000TX 30W PoE (460W Budget) & 2 × 100/1000M RJ45/SFP Combo

10Gb Commercial Layer 2+ Managed Switches

AFI510-24G-4XS	24 × 10/100/1000TX & 4 × 100M/1G/2.5G/10G SFP+
AFI510-24GAT-4XS-P460	24 × 10/100/1000TX 30W PoE (460W Budget) & 4 × 100M/1G/2.5G/10G SFP+

Notes.

Included Accessories:	19inch Mounting Brackets, 4x Rubber Feet, Console Cable, Region Specific Line Cord
Optional Accessories:	SFP/SFP+ modules - Optical/Copper see separate list, need to be ordered separately

In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit www.americanfibertek.com for the latest product specifications.

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Phone: 800-323-0660
Email: mail@americanfibertek.com
745 43rd St South, St. Petersburg, FL 33711