

# EXTRALINK APOLLO 9-PORTS MANAGED FIBER SWITCH 8x1000M SFP PORTS +1x UPLINK 1000M COMBO (SFP+RJ45)



Extralink APOLLO is a 8-PORT managed 1000BaseFX Fiber SFP switch with one additional uplink port RJ-45/1000SFP operating in COMBO mode.

Technical Specification	
Standard	IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-SX/LX Gigabit Ethernet
Wave length	850nm/1310nm/1550nm – depending on SFP module
Link length	SFP ports: depending on SFP module Rj-45 Port(Cat5e cable or better): 100m
Ports	8 SFP ports: 1000Mbps 1 Gigabit dual media port: 1000Mbps & 10/100/1000 Mbps RJ45
Mac Table	8K
Buffer	1Mbit
Average time between failures	100,000 hours
Power supply	DC 12V 2A
Energy consumption	10W
Dimensions	192 mm x 120 mm x 28 mm (width x length x height)

Extralink Apollo Managed Fiber Switch is equipped with large number of practical features. Here are some of them:

<b>Auto- negotiation, duplex mode</b>
<b>Support: SFP 1000Base-SX/LX/LHX/ZX/TX</b>
<b>- VLANs</b> <ul style="list-style-type: none"> <li>- up to 4K VLANs</li> <li>- IEEE 802.1Q VLAN</li> <li>- L2 Virtual Private QinQ VLAN</li> <li>- VLAN trunking</li> </ul>
<b>IGMP</b> <ul style="list-style-type: none"> <li>- IGMP Snooping</li> <li>- IGMP Proxy</li> </ul>
<b>Flow control</b>
<b>Storm control:</b> <ul style="list-style-type: none"> <li>- broadcast</li> <li>- multicast</li> <li>- unknown unicast</li> </ul>
<b>Loop Detect</b>
<b>Spanning Tree Protocol</b>
<b>Port Mirroring</b>
<b>MAC Learning</b>

Extralink Apollo  
important advantages:

has some very

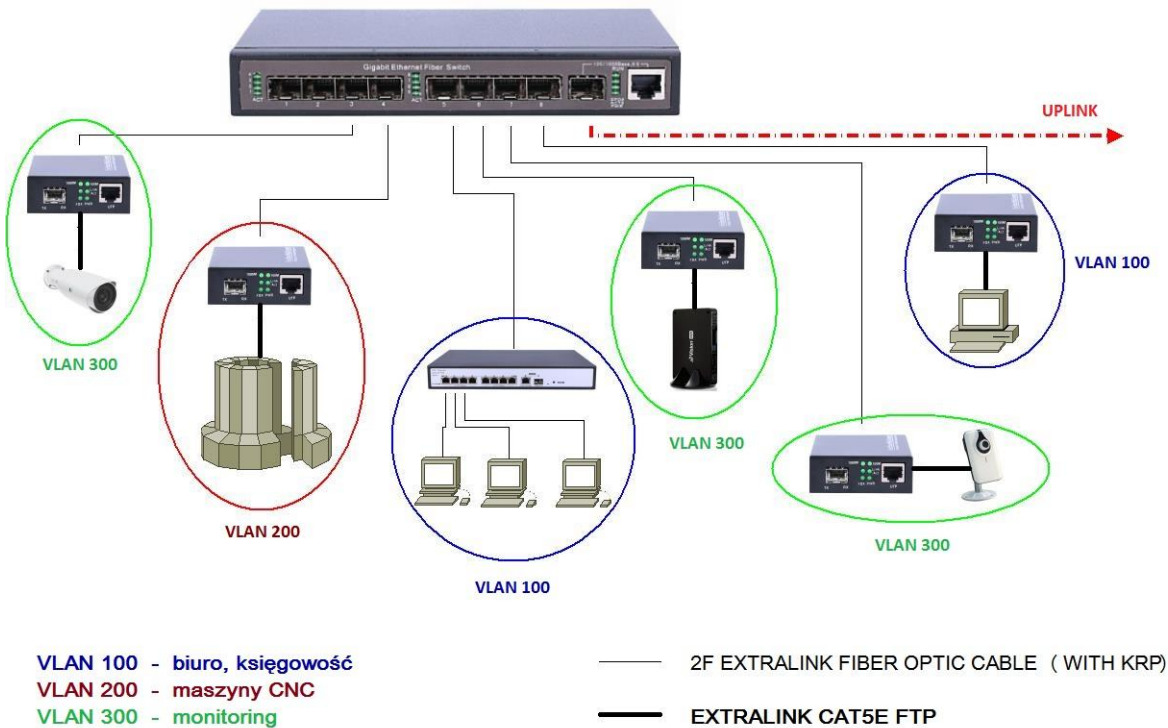
- Supports SFP modules on a hot-plug
- 100% compatible with other fiber optic switches
- 100% compatible with media converters, and other devices equipped with SFP ports
- Works with various types of SFP modules, such as single-mode, multi-mode and WDM ones

Extralink Apollo is an ideal device for use in networks and systems based on FTTx (e.g. FTTH,FTTB). However, the biggest advantage of using such fiber optic switches is their versatility. In situation where you need to change something in the network, you only need to select appropriate SFP





module without replacing the device. It is also important that the maximum distance of a transmission is determined by used SFP type and fiber.

This type of SFP switch is a great option for a variety of security, alarm and electrical systems or information flow.

Extralink Apollo fiber switch can be also used in place where you want to physically isolate the office network from production machines management and monitoring.



In the example above, the network was built using the following devices and components.

Picture	Discription
	<b>EXTRALINK APOLLO 9-PORTS MANAGED FIBER SWITCH 8X 1000M SFP PORTS + 1X 1000 SFP COMBO(UPLINK+RJ45)</b>
	<b>EXTRALINK KRONOS GIGABIT 8 PORT POE SWITCH + 1X UPLINK RJ45 GIGABIT + 1X UPLINK SFP</b>
	<b>EXTRALINK SEDIR FIBER ETHERNET MEDIA KONWERTER 1X SFP 1000M 1X RJ45 100M</b>
	<b>EXTRALINK SFP 1.25G WDM 1310/1550NM</b>

	<b>SINGLE MODE 3KM SC SET</b>
	<b>Ubiquiti UVC PRO Unifi Video Camera IP FullHD 1080p</b>
	<b>Ubiquiti airVision NVR Network Video Recorder 500GB</b>
	<b>2F EXTRALINK FIBER OPTIC CABLE (WITH KRP)</b>
	<b>EXTRALINK CAT5E FTP OUTDOOR TWISTED PAIR</b>

Thanks to VLANs you can physically isolate particular segments of your network very quickly, which nowadays is more and more useful. When you send or receive important configuration data intended for CNC machines or you monitor your company and you want to secure these data from office staff or other people- Extralink Apollo is a perfect solution.

The device is equipped with very clear and intuitive graphical interface, to which you have access through a web browser. This solution allows in a quick and easy way to configure a switch. Of course, the device can also be managed from the level of Telnet and CLI line.

You log in as follows:

1. Open e.g. Putty terminal, enter the IP address of 192.168.3.31, select- Connection type "Telnet" and click "Open"
2. Log in as "root" with password "root", then type "enable" and type password "admin". Now, you have access to configuration through the CLI

```

192.168.3.31 - PuTTY
Switch Commandline Configuration Tools
Version 1.1

Press any key to hit the console.
Username: root
Password:
Switch>
  show          Display Setting and Running Information
  enable        Enter the Manager Exec context
  exit          Return to the previous context
  logout        Terminate this session
Switch> enable
Password:
Switch#
  create        Add a new VLAN
  delete        Remove one or more VLANs
  clear         Clear port statistics or system info
  reboot        Reboot the device
  restore       Restore default configuration
  mii           mii tool
  dx            dx106 tool
  show          Display Setting and Running Information
  config        Enter the Configuration context
  end           Return to the Manager Exec context
  exit          Return to the previous context
  logout        Terminate this session
Switch#

```

Noteworthy is also legible and intuitive graphical web interface. After logging in (IP: 192.168.3.31, login: root, pass: admin ) you see a clear panel, by which you can configure settings of the device.

## Switch Management System

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Device Property

Device Description

Port Status

General Status

Statistic Status

Combo Port Status

Function Config

Port Config

VLAN Config

IGMP Config

Port Mirror

Storm Protect

Loop Detection

STP Bridge Config

STP Port Config

System Management

IP Address

System Information

Access List Config

System Admin

System Description

System Name

System Location

System Contact

Product Code

Product SN

Firmware Version

MAC Address

IP Address

Uptime

Extralink Managed Fiber Switch

www.anteny24.pl

Switch

SN2016-08-02280

S03.00

78:5c:72:41:2f:5e

192.168.3.31

0 days 1h:0m:54s

All configuration settings are arranged in a very intuitive way and there is no need to delve into more sophisticated ones, because they are visible. The graphical interface is divided into four main sections:

- Device Property
- Port Status
- Function Config
- System Management

Thanks to this division, it is extremely easy to make changes in the configuration. Particular configuration settings are presented below:

### General Status

## Switch Management System

123456789F9C

Device Property	Port Status
Device Description	
Port Status	
General Status	
Statistic Status	
Combo Port Status	
Function Config	
Port Config	
VLAN Config	
IGMP Config	
Port Mirror	
Storm Protect	
Loop Detection	
STP Bridge Config	
STP Port Config	
System Management	
IP Address	
System Information	
Access List Config	
System Admin	

PortId	Name	Type	Admin	LinkStatus	Speed	FlowCtrl
1	Port1	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
2	Port2	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
3	Port3	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
4	Port4	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
5	Port5	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
6	Port6	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
7	Port7	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
8	Port8	1000BASE-X	Enabled	LinkDown	FD1000M	Disabled
9	Port9	[10/100/1000]BASE-TX/1000BASE-X	Enabled	LinkUp	FD1000M	Disabled

Port9 is copper/fiber combo port, support 1000Base-X and 10/100/1000Base-Tx

Refresh

In this tab you have access to detailed information about each port on the switch.

### Combo Port Status

Device Property

Device Description

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Combo Port Status

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IGMP Config

Port Mirror

Storm Protect

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STP Bridge Config

STP Port Config

System Management

IP Address

System Information

Access List Config


System Admin

### Fiber/Copper Combo Configuration

Port Config Mode	Auto Detect
Port Current Mode	SFP 1000Base-X/Copper 10/100/1000
SFP Link Status	LinkFaile
RJ45 Link Status	LinkSuccess
Mode Config	<div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼</span> </div> <div style="font-size: 0.8em;"> SFP 100Base-Fx  SFP 1000Base-X  Copper 10/100/1000  SFP 1000Base-X/Copper 10/100/1000  Auto Detect </div> </div> <div style="display: flex; gap: 10px;"> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </div>

## Port Config

# Switch Management System



Device Property

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System Admin

### Port Configuration

PortId	Name	Admin	Speed	FlowCtrl	MACLearning
1	Port1	Enabled	Auto	Disabled	Enabled
2	Port2	Enabled	Auto	Disabled	Enabled
3	Port3	Enabled	Auto	Disabled	Enabled
4	Port4	Enabled	Auto	Disabled	Enabled
5	Port5	Enabled	Auto	Disabled	Enabled
6	Port6	Enabled	Auto	Disabled	Enabled
7	Port7	Enabled	Auto	Disabled	Enabled
8	Port8	Enabled	Auto	Disabled	Enabled
9	Port9	Enabled	Auto	Disabled	Enabled

#### Configuration Items

PortId	Name	Admin	Speed	FlowCtrl	MACLearning
1 ▼	Port1	Enabled ▼	Auto ▼	Disabled ▼	Enabled ▼

Port9 is copper/fiber combo port, support 1000Base-X and 10/100/1000Base-Tx

In this tab you have access to all necessary port configuration settings: name, speed, flow control, mac learning. If you wish, you can also disable a specific port.

## VLAN Config

## Switch Management System

Device Property

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VLAN Config

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STP Port Config

System Management

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System Admin

### VLAN Configuration

VLAN Function Setting: VLAN Disable
QinQ VLAN EtherType: 0x8100
Apply

When disable VLAN, the VLAN Disable operation will not take effect

PortId	PortName	VLAN Mode	VLAN ID	Priority	IsolationCtrl	TrunkVlans	
1	Port1	Access	1	0	NonIsolated		Modify
2	Port2	Access	1	0	NonIsolated		Modify
3	Port3	Access	1	0	NonIsolated		Modify
4	Port4	Access	1	0	NonIsolated		Modify
5	Port5	Access	1	0	NonIsolated		Modify
6	Port6	Access	1	0	NonIsolated		Modify
7	Port7	Access	1	0	NonIsolated		Modify
8	Port8	Access	1	0	NonIsolated		Modify
9	Port9	Access	1	0	NonIsolated		Modify

1. Port VLAN ID should be between values 1-4094.

2. Priority value should be between 0-7.

3. In Trunk mode separate VLAN IDs by ',' if need a range, use '-', example: 10,20,200,1000,1500-1510,2000-2010

Note: No more than 127 VLANs in Trunk mode is allowed in switch

4. Port9 is designed as uplink port and cannot be used as Isolated.

This is probably the most important section- VLAN Config. Here you have access to all settings related to VLANs (802.1Q, QinQ).

### IGMP Config

## Switch Management System

Device Property

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Storm Protect

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STP Port Config

System Management

IP Address

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System Admin

### IGMP Configuration

IGMP Admin: ☐ Enable ☒ Disable
Snooping

IGMP Query Response Time(10~20): 10

IGMP Group Port Member Age Time(60~420): 120

Snooping  
Proxy

Apply
Cancel

Of course you also have access to settings related to multicast (IGMP)

### Port mirror



Switch Management System

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Device Property

Device Description

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STP Port Config

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System Information

Access List Config

System Admin

Port Mirror Configuration

Monitor Port

Port8

Monitor Direction

Egress

Monitor Source Ports

Egress

Egress/Ingress

Port2

Port3

Port4

Port5

Port6

Port7

Port8

Port9

Apply

Cancel

### Storm protect

Switch Management System

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Storm Protect Configuration

Protect

Enable

Disable

Limit Type

Broadcast

Multicast

UnkUnicast

Rate Limit

3

\*2Mbps

Apply

Cancel

Switch also protects against, for example classic DoS attack (frames with destination address FF:FF:FF:FF:FF:FF)

### Loop detect

1 2 3 4 5 6 7 8 9F 9C

And detects loops in the network

Switch is also equipped with STP. It creates a loop-free topology which connects all the switches with each other. Protection against loops in layer 2 is necessary because of the possibility of Ethernet Flood (lack of TTL) and copies of frames (frames are not numbered).

# Switch Management System

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Device Property

STP Mode	Bridge Priority (0~61440)	Hello Time (1~10 Sec)	Max Age (6~40 Sec)	Forward Delay (4~30 Sec)
<div style="border: 1px solid #ccc; width: 100px; height: 20px;"></div>	<div style="border: 1px solid #ccc; width: 100px; height: 20px;"></div>	<div style="border: 1px solid #ccc; width: 100px; height: 20px;"></div>	<div style="border: 1px solid #ccc; width: 100px; height: 20px;"></div>	<div style="border: 1px solid #ccc; width: 100px; height: 20px;"></div>

*Note : 2\*(Forward Delay-1) >= Max Age*  
*Max Age >= 2\*(Hello Time+1)*  
*Bridge Priority must be multiplie of 4096*

Note : If you enable the MAC Address binding function, the address learning function will be disabled automatically and both RSTP/STP will be affected.

Function Config

Port Config

VLAN Config

IGMP Config

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Loop Detection

STP Bridge Config

STP Port Config

System Management

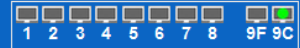
IP Address

System Information

Access List Config

System Admin

# Switch Management System



<b>Device Property</b>	<b>STP Port Configuration</b>						
Device Description	Port No.	Priority (0~240)	RPC (1~200000000) 0=AUTO				
Port Status	<input type="text"/>	<input type="text"/>	<input type="text"/>				
General Status	Priority must be multiple of 16 <input type="button" value="Apply"/>						
Statistic Status	<b>STP Port Status</b>						
Combo Port Status	PortId	RPC	Priority	State	Status	Designated Bridge	Designated Port
<b>Function Config</b>	1	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
Port Config	2	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
VLAN Config	3	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
IGMP Config	4	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
Port Mirror	5	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
Storm Protect	6	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
Loop Detection	7	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
STP Bridge Config	8	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
<b>System Management</b>	9	Auto:0	128	NONE	Forwarding	00:00:00:00:00:00	--
IP Address							
System Information							
Access List Config							
System Admin							

In the section-**System Management**- you can e.g. :

- Change the IP address
- Change the name of a device
- Do configuration backup
- Reboot the device
- Update firmware
- Set the management VLAN
- Set the Access List based on IPv4 addresses

## IP address

Switch Management System

123456789F9C

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System Admin

IP Configuration

IP Address192.168.3.31

Net Mask255.255.255.0

Default Gateway192.168.3.1

ApplyCancel

### System information

Switch Management System

123456789F9C

Device Property

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STP Bridge Config

STP Port Config

System Management

IP Address

System Information

Access List Config

System Admin

System Information Configuration

MAC Address78:5c:72:41:2f:5e

System NameExtralink Managed Fiber Switch

System Locationwww.anteny24.pl

System Contact

ApplyCancel

### Access List Config

## Switch Management System



### Device Property

#### Device Description

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#### General Status

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#### Port Config

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#### STP Bridge Config

#### STP Port Config

### System Management

#### IP Address

#### System Information

#### Access List Config

#### System Admin

### Access Secure Configuration

System Admin VLAN  Admin VLAN will disable when VLAN=1, otherwise admin VLAN will enabled

Access List Configuration Support up to 4 Ip groups for access system

Access allow IP list

Add

Apply Cancel

## System admin

## Switch Management System



### Device Property

#### Device Description

### Port Status

#### General Status

#### Statistic Status

#### Combo Port Status

### Function Config

#### Port Config

#### VLAN Config

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#### STP Bridge Config

#### STP Port Config

### System Management

#### IP Address

#### System Information

#### Access List Config

#### System Admin

### Administrator

User Name

root

Password

\*\*\*\*\*

Confirm Password

Apply

Cancel

### Backup And Restore Configuration

Upload Config To Computer

Upload

Download Config From Computer

Przeglądaj...

Nie wybrano pliku.

Restore

\*\*BE SURE THE INPUT FILE TYPE IS ".bin"

It will require to reboot system for configuration take effect after finishing restore operation.

If need to do upgrade firmware, click here

Firmware Upgrade

If need to do restore default, click here

Restore Default

If need to do reboot device, click here

Reboot Device