Manuals+

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MERCUSYS MS106LP Series 6-Port 10-100Mbps Desktop Switch Installation Guide 📕

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MERCUSYS®

MERCUSYS MS106LP Series 6-Port 10-100Mbps Desktop Switch

Specifications

General Specifications

- **Standard:** IEEE 802.3i, IEEE 802.3u, IEEE 802.3x (for all models), IEEE 802.3ab (only for MS110GMP)
- **Protocol:** CSMA/CD, 802.3af/at PD supported
- **Interface:**
  - 10BASE-T: 2-pair UTP/STP (100m) of Cat. 3 or above
  - 100BASE-TX: 2-pair UTP/STP (100m) of Cat. 5 or above
  - 1000BASE-T: 4-pair UTP/STP (100m) of Cat. 5e or above (only for MS110GMP)
- **Switching Capacity:** MS106LP/MS106P: 1.2 Gbps,MS110GMP: 20 Gbps
- **Forwarding Method:** Store-and-Forward
- **MAC Address Learning:** Automatically learning, automatically aging
- **Power Supply:**
  - MS106LP: External Power Adapter Input: 100-240 VAC, 50/60 Hz,Output: 53.5 VDC/0.81 A
  - MS106P: External Power Adapter Input: 220-240 VAC, 50/60 Hz,Output: 53.5 VDC/1.31 A
  - MS110GMP: External Power Adapter Input: 100-240 VAC, 50/60 Hz,Output: 54 VDC/2.22 A
- **PoE Budget:**
  - MS106LP: 40 W (up to 30 W for each PoE port)
  - MS106P: 67 W (up to 30 W for each PoE port)
  - MS110GMP: 111 W (up to 30 W for each PoE port)

Product Usage Instructions

LED Explanation

To understand the status of the device, refer to the LED indicators:

- **Power:** On indicates power is on, Off indicates power is off.
- **Link/Act Status:** On means link present but no activity, Flashing indicates data transmission, Off means no link.
- **PoE Status:** On means providing PoE power, Off means not providing PoE power.

Switch Explanation

The switch function explanations are as follows:

- **Recovery:** On enables PoE Auto Recovery function to detect and reboot abnormally working PDs.
- **Isolation:** On isolates ports from transmitting data with each other except with specific uplink ports.
- **Extend:** On extends the reach of PoE power supply up to 250m away.
- **Priority (Only for MS110GMP):** On allows specific ports to transmit data with higher priority than others.

Connection

Detailed connection statuses for different models:

- **MS106LP/MS106P:**
    - **Power:** On means power is on, Off means power is off.
    - **Link/Act Status:**
        - **On:** Link present but no activity.
        - **Flashing:** Transmitting or receiving data.
        - **Off:** No link.
    - **PoE Status:**
        - **On:** Providing PoE power.
        - **Off:** Not providing PoE power.
- **MS110GMP:**
    - **Power:** On means power is on, Off means power is off.
    - **Link/Act; Uplink 1, Uplink 2 Status:**
        - **Green On:** Running at 1000 Mbps but no activity.
        - **Green Flashing:** Running at 1000 Mbps and transmitting/receiving data.
        - **Yellow On:** Running at 10/100 Mbps but no activity.
        - **Yellow Flashing:** Running at 10/100 Mbps and transmitting/receiving data.
        - **Off:** No link.
    - **PoE Status:**
        - **On:** Providing PoE power.

- **Flashing:** PoE fault.
- **Off:** Not providing PoE power.

PoE Ports can connect to various devices like IP Cameras,APs, IP Phones, PCs, etc., for data transmission.

Switch Explanation

Recovery (For MS106LP/MS106P/MS110GMP)

- **Off:** The PoE Auto Recovery function is disabled.
- **On:** The switch will constantly detect the working status of a PoE powered device (PD).

Isolation (For MS106LP/MS106P/MS110GMP)

- **Off:** Ports can transmit data with each other.
- **On:** The isolated ports cannot transmit data with each other. They can transmit data only with the uplink ports (ports 5-6 of MS106LP and MS106P/uplink ports of MS110GMP).
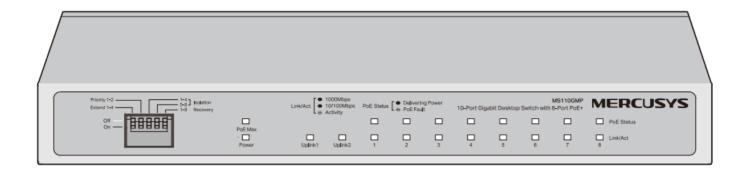
Extend (For MS106LP/MS106P/MS110GMP)

- **Off:** Ports run at100/10 Mbps (1000/100/10 Mbps for MS110GMP) and support PoE power supply up to 100m away.
- **On:** Ports run at 10 Mbps and support PoE power supply up to 250m away.

Priority (Only for MS110GMP)

- **Off:** All the ports transmit data with the same priority.
- **On:** The specific ports transmit data with a higher priority than other ports.

LED Explanation

MS106LP/MS106P:

- **Power**
    - On: The power is on
    - Off: The power is off
- **Link/Act Status**
    - On: Link present but no activity Flashing: Transmitting or receiving data Off: No link
- **PoE Status**
    - On: Providing PoE power
    - Off: Not providing PoE power

MS110GMP:

- **Power**
    - **On:** The power is on
    - **Off:** The power is off
- **Link/Act; Uplink 1, Uplink 2**
    - **Green On:** Running at 1000 Mbps, but no activity.
    - **Green Flashing:** Running at 1000 Mbps and is transmitting or receiving data.
    - **Yellow On:** Running at 10/100 Mbps, but no activity.
    - **Yellow Flashing:** Running at 10/100 Mbps and is transmitting or receiving data. Off: No link
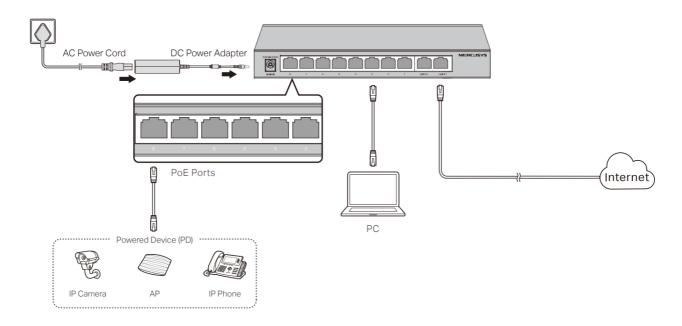- **PoE Status**
    - **On:** Providing PoE power
    - **Flashing:** PoE fault
    - **Off:** Not providing PoE power
- **PoE Max**

- **On:** 104 W≤Total power supply < 111 W
- **Flashing:** Total power supply ≥ 111 W Off: Total power supply < 104 W

Connection

NOTE

1. PoE ports can also connect to non-PoE devices, but only transmit data.
2. Non-PoE ports (ports 5-6 of MS106LP/MS106P and uplink ports of MS110GMP) are recommended to connect to uplink devices like gateways.
3. By default, ports 1-2 of MS106LP/MS106P have higher priority than other ports in transmitting data if network congestion occurs. It is recommended to connect key network devices (network cameras, APs, etc.) to ports 1-2.

Specifications

General Specifications

Standard	IEEE 802.3i, IEEE 802.3u, IEEE 802.3x (for all models) IEEE 802.3ab (only for MS110GMP)
Protocol	CSMA/CD. 802.3af/at PD supported
Interface	MS106LP/MS106P: 6 10/100 Mbps RJ45 Ports Auto-Negotiation/Auto MDI/MDIX PoE Ports: Port 1–4 MS110GMP: 10 1000 Mbps RJ45 Ports Auto-Negotiation/Auto MDI/MDIX PoE Ports: Port 1–8
Network Media (Cable)	10BASE-T:2-pair UTP/STP (≤100m) of Cat. 3 or above 100BASE-TX:2-pair UTP/STP (≤100m) of Cat. 5 or above 1000BASE-T:4-pair UTP/STP (≤100m) of Cat. 5e or above (only for MS110GMP)
Switching Capacity	MS106LP/MS106P:1.2 Gbps MS110GMP: 20 Gbps
Forwarding Method	Store-and-Forward
MAC Address Learning	Automatically learning, automatically aging
Power Supply	MS106LP: External Power Adapter Input: 100-240 VAC, 50/60 Hz Output: 53.5 VDC/0.81 A MS106P: External Power Adapter Input: 220-240 VAC, 50/60 Hz Output: 53.5 VDC/1.31 A MS110GMP: External Power Adapter Input: 100-240 VAC, 50/60 Hz Output: 54 VDC/2.22 A
PoE Budget	MS106LP: 40 W (up to 30 W for each PoE port) MS106P: 67 W (up to 30 W for each PoE port) MS110GMP: 111 W (up to 30 W for each PoE port)
Certification	CE, RoHS

Environmental and Physical Specifications

Certification	CE, RoHS
Operating Temperature	MS106LP: 0˚C to 40˚C (32˚F to 104˚F) MS106P: -20˚C to 40˚C (-4˚F to 104˚F) MS110GMP: -10˚C to 40˚C (14˚F to 104˚F)
Storage Temperature	-40˚C to 70˚C (-40˚F to 158˚F)
Operating Humidity	10% to 90% non-condensing
Storage Humidity	5% to 90% non-condensing

For technical support, replacement services, user guides, and other information, please visit https://www.mercusys.com/support/.

EU declaration of conformity

Mercusys hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU, 2014/35/EU, 2011/65/EU and (EU)2015/863.

The original EU declaration of conformity may be found at

UK declaration of conformity

Mercusys hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Electromagnetic Compatibility Regulations 2016 and Electrical Equipment (Safety) Regulations 2016.

The original UK declaration of conformity may be found at

https://www.mercusys.com/support/ukca/

Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Place the device with its bottom surface downward.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended.
- Adapter shall be installed near the equipment and shall be easily accessible. The POE output cannot be used to charge lithium batteries or devices with lithium batteries.

For MS110GMP only:

- The socket-outlet shall be near the equipment and shall be easily accessible.
- Plug the product into the wall outlets with earthing connection through the power supply cord.

CE Mark Warning

This is a class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

The POE output cannot be used to charge lithium batteries or devices with lithium batteries.

nit	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium Cr+6	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
	○	○	○	○	○	○
PCB			○			
	○	○		○	○	○
	–	○	○	○	○	○
	–	○	○	○	○	○

Note 1 "Exceeding 0.1 wt %"and"exceeding 0.01 wt %"indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.

Note 2 "○"indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

Note 3 The" "indicates that the restricted substance corresponds to the exemption.

Wall Mounting Specifications

Model	Screw Standard of ANSI B1.1	Minimum Lenth of Screw	Screw-Head-to-Wall Minimum Distance	Wall-Mounting-Holes Distance
MS106LP	4#, (5#), 6#, 8#	7mm	1.5mm	39mm
MS106P	4#, (5#), 6#, 8#	7mm	1.5mm	39mm

MS110G MP	4#, (5#), 6#	7mm	1.5mm	150mm

Explanation of the symbols on the product label

Symbols may vary from products . The label is at the bottom of the product.

Symbol	Explanation
▢	Class II equipment
⊕	Class II equipment with functional earthing
∼	Alternating current
---	Direct current
◇-C-◈	Polarity of d.c. power connector
⌂	For indoor use only
⚡	Dangerous voltage
⚠	Caution, risk of electric shock
Ⓥ	Energy efficiency Marking
⏚	Protective earth
⏚	Earth
⎓	Frame or chassis
⏛	Functional earthing
⚠	Caution, hot surface
⚠	Caution
📖	Operator's manual

Symbol	Description
⏻	Stand-by
⏽	"ON"/"OFF" (push-push)
⏛	Fuse
⏛ N	Fuse is used in neutral N
	RECYCLING This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.
	Caution, avoid listening at high volume levels for long periods
	Disconnection, all power plugs
m	Switch of mini-gap construction
μ	Switch of micro-gap construction (for US version) Switch of micro-gap /micro-disconnection construction (for other versions except US)
ε	Switch without contact gap (Semiconductor switching device)

Frequently Asked Questions

Can PoE ports connect to non-PoE devices?

Yes, PoE ports can connect to non-PoE devices for data transmission only.

What devices are recommended to connect to non-PoE ports?

Non-PoE ports are recommended for connecting to uplink devices like gateways.

How are network congestion issues handled?

By default, ports 1-2 of MS106LP/MS106P have higher priority than other ports in transmitting data during network congestion. It is recommended to connect key network devices like network cameras and APs to ports 1-2 for better performance.

Why is the Power LED not lit?

The Power LED should be lit when the power system is working normally. If the Power LED is not lit, please check as follows. Make sure the AC power cord/power adapter is connected the switch with power source properly. Make sure the voltage of the power supply meets the requirements of the input voltage of the switch. Make sure the power source is on.

Why is the Link/Act LED not lit when a device is connected to the corresponding port?

It is recommended that you check the following items: Make sure that the cable connectors are firmly plugged into the switch and the device. Make sure the connected device is turned on and working well. The cable must be less than 100 meters long (328 feet). If Extend Mode is enabled, it should be less than 250 meters (820 feet).

Why are PoE ports not supplying power for PoE devices?

When the total power consumption of connected PoE devices exceeds the maximum,the PoE port with a smaller port number has a higher priority. The system will cut off power to the ports with larger port numbers to ensure supplying to other ports. Taking MS110GMP as an example, if port 1, 2, 3 and are consuming 25 W respectively,and an additional PoE device with 15 W is inserted to port 4, the system will cut off the power of port 5 to compensate for the overload.

What should I notice before using the PoE Auto Recovery feature?

Before upgrading a connected PoE powered device (PD), disable PoE Auto Recovery to avoid the PD's damage. When a PD does not send data packets to the switch for a long period in certain scenarios (e.g. an IPC in sleep mode), disable PoE Auto Recovery to avoid the PD repeatedly rebooting.

Documents / Resources

	[MERCUSYS MS106LP Series 6-Port 10-100Mbps Desktop Switch](#) [[pdf]](#) Installation Guide MS106LP, MS106P, MS110GMP, MS106LP Series 6-Port 10-100Mbps Desktop Switch, MS106LP Series, 6-Port 10-100Mbps Desktop Switch, 10-100Mbps Desktop Switch, Desktop Switch

References

- [User Manual](#)

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🏷️ 10 100Mbps Desktop Switch, 6-Port 10-100Mbps Desktop Switch, Desktop Switch, MERCUSYS, MS106LP, MS106LP Series, MS106LP Series 6-Port 10-100Mbps Desktop Switch, MS106P, MS110GMP

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