ISCOM5108-PE ONU

Introduction

The ISCOM5108-PE, developed by Raisecom, is a passive Optical Network Unit (ONU) with 1 EPON interface and eight 10/100 Mbit/s Ethernet interfaces. It is reversely powered by the Power Sourcing Equipment (PSE) PSE101 or PSE101-12 through the Ethernet interface in two modes: from idle PINs 4, 5, 7, and 8 of the Ethernet cable of PSE101, or from data PINs 1, 2, 3, and 6 of the Ethernet cable of the PSE101-12.

Figure 1 ISCOM5108-PE

Features

- **Sound design**
  - Adopt single-panel cable outlet (power interface and service interfaces are on the same panel, namely, front panel) to facilitate installation and cable outlet.
  - Support wall-mount and rack installation to facilitate installation and deployment.
  - Adopt fan-free and zero-noise design.
  - Adopt a small chassis to be easily installed in multiple forms of cross-connecting cabinets.
  - Adopt metal MDU, sturdy and durable, embedded with power supply, high safety protection level, high lightning protection level, and good quality.
  - Adopt cartridge design with medium density of interfaces, thus suitable for FTTB mode.
  - Resolve the problem of being difficult to take power in corridor through reverse power supply.
- **Uniform network management and easy operation and maintenance**
  - Support multiple management modes (Telnet, local serial interface, Web, SNMP, and OAM) to facilitate login and management.
  - Support batch configuration, template-based configuration, offline configuration, and plug and play of ONUs, to facilitate service activation.
  - Support reporting various alarms (Dying Gasp, optical link DDM, loop, etc.) to facilitate locating and clearing faults.
  - Support the NView NNM system (which can manage all Raisecom devices), on which all services can be configured.

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

▼ Specifications

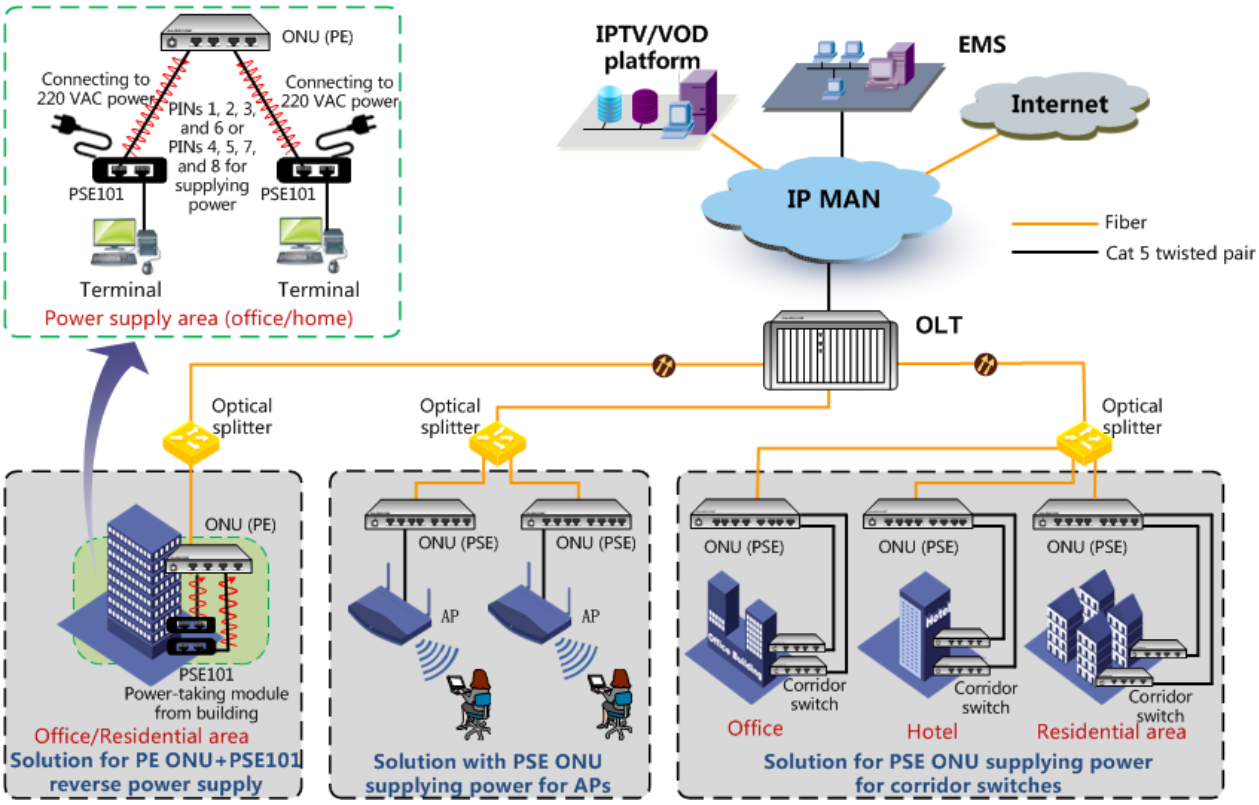
Hardware features	
Dimensions	43.6 mm (Height) × 260 mm (Width) × 130 mm (Depth)
Weight	About 1 kg
Power supply	Mandatorily to be used with the PSE101 or PSE101-12
Power consumption	< 10 W
Operating environment	• Operating temperature: 0–55 ℃ • Humidity: 10%–90% (non-condensing)
Storage environment	• Storage temperature:-25 to 70 ℃ • Storage humidity: 10%–90% (non-condensing)
Dustproof level	IP20
Software features	
PON features	• Support being discovered and registered. • Support IEEE 802.3ah MPCP. • Support IEEE 802.3ah OAM. • Support CTC EPON technical specifications. • Support SCB. • Support a unicast logical link and a broadcast logical link. • Support optical link DDM and shutting down the Tx power of the optical module.
Switching	• Support IEEE 802.3 frames and Ethernet II-type frames. • Support MTU to be 1518 or 1596, with MTU being 1596 by default. • Support rate limiting on the interface. • Support storm control over broadcast, multicast, and DLF packets on the interface. • Support auto-negotiation of the interface rate and duplex mode, and support configuring flow control. • Support a MAC address table capacity of 8K. • Support MAC address learning, aging time, MAC address limit, and static MAC

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

	address. • Support IEEE 802.1Q standard VLAN. • Support 4094 VLANs ranging from VLAN 1 to VLAN 4094. • Support configuring VLAN mode to transparent transmission, tag, Trunk, and VLAN mapping. • Support transparent transmission of packets from the uplink interface of the switching chip and configuring Trunk VLAN mode. • Support configuring VLAN mapping rules. • Support configuring VLAN stacking. • Support interface loop detection between two UNIs of an ONU or UNIs of different ONUs (excluding the loop between uplink interfaces on an ONU). • Support statistics of interface performance (including uplink interfaces of the switching chip). • Support RSTP. • Support discovery and management of partner devices. Support configuring and querying SNMP parameters. • Support port mirroring. • Support PPPoE Relay. • Support DHCP Snooping and DHCP Relay. • Support LinkTrace of MAC addresses (for independent network management only). • Support the IP address pool (to be cooperated with the OLT)
QoS & ACL	• Support 4 priority queues. • Support SP and WRR algorithms. • Support Layer 2, Layer 3, and Layer 4 traffic classification. • Support Layer 2, Layer 3, and Layer 4 filtering rules. • Support Layer 2, Layer 3, and Layer 4 priority mapping.

Multicast	• Support transparent transmission of multicast packets, IGMP Snooping and CTC controllable multicast mode, and multicast table capacity of 128.
Management	• Support OLT OAM remote management, complying with CTC v2.1 technical specifications. • Support independent network management mode. Support SNMP v1, v2 and reporting SNMP Trap. To use independent network management mode, you must disable loading configurations of the OLT (namely, SNMP management mode). • Support managing Web page (IE 6.0 or later; Firefox 2.0 or later). • Support local CLI management (Telnet and Console login). • Support standard MIB RFC1213, RFC2233 system management table, and interface management table. Support using the third-party network management tool (such as solarwinds 8.5 or later) for management. • Support saving, uploading, and downloading the configuration file. Support restoring default configurations.
Interface index	
EPON interface	• Interface type: SC/PC • Transmission rate: 1.25 Gbit/s • Central wavelength: 1310 nm in Tx and 1490 nm in Rx • Tx optical power: -1 to 4 dBm • Maximum Rx sensitivity: -27 dBm • Overload optical power: -3 dBm
FE interface	• Interface type: RJ45 • Transmission rate: 10/100Mbit/s auto-negotiation • Duplex mode: full/half mode auto-negotiation

▼ Typical applications



The ONU takes power from the Ethernet cable, so its power-taking issue is solved (such as in the corridor of an old building or outdoor cross-connecting cabinet). The recommended device is the ISCOM51xx-PE.

Ordering information

Model	Version	Description
ISCOM5108-PE	C	Reverse power supply, 1 EPON or SFP interface, eight 10/100 Mbit/s Ethernet electrical interfaces. It must be used in cooperation with the PSE101 or PSE101-12.

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

ISCOM5116 ONU

Introduction

The ISCOM5116 is a low-cost MDU with metallic shell, 16 FE interfaces in downlink, 1 EPON in uplink, and high price performance ratio. It is mainly used in the FTTB access scenario and its cost is much lower than that in PON+LAN networking.

Figure 1 ISCOM5116

Features

◆ **Sound design**

- Adopt single-panel cable outlet (power interface and service interfaces are on the same panel, namely, front panel) to facilitate installation and cable outlet.
- Support wall-mount and rack installation to facilitate installation and deployment.
- Adopt a fan-free and noise-free design.
- Adopt a small chassis to be easily installed in multiple forms of cross-connecting cabinets.
- Adopt the metal MDU, sturdy and durable, embedded with power supply, high safety protection level, high lightning protection level, and good quality.
- Adopt multiple power supplies (220 VAC, 60 VAC, -48 VDC, and 24 VDC), used in various scenarios.
- Adopt a new design with price-performance ratio, able to be used in FTTB networking to replace the PON+LAN networking, thus saving cost.

◆ **Uniform network management and easy operation and maintenance**

- Support multiple management modes (Telnet, local serial interface, Web, SNMP, and OAM) to facilitate login and management.
- Support batch configuration, template-based configuration, offline configuration, and plug and play of ONUs, to facilitate service activation.
- Support reporting various alarms (Dying Gasp, optical link DDM, loop, etc.) to facilitate locating and clearing faults.
- Support the NView NNM system (which can manage all Raisecom devices), in which all services can be configured.

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

▼ Specifications

Hardware features	
Dimensions	43.6 mm (Height) × 260 mm (Width) × 130 mm (Depth)
Weight	About 1 kg
Power supply	● Single power supply 220 VAC ● Single power supply 60 VAC ● Single power supply -48 VDC ● Single power supply 24 VDC
Power consumption	10 W
Operating environment	● Operating temperature: 0–50 ℃ ● Humidity: 10%–90% (non-condensing)
Storage environment	● Storage temperature: -25 to 60 ℃ ● Storage humidity: 10%–90% (non-condensing)
Dustproof level	IP20
Software features	
PON features	● Support being discovered and registered. ● Support IEEE 802.3ah MPCP. ● Support IEEE 802.3ah OAM. ● Support CTC EPON technical specifications. ● Support SCB. ● Support a unicast logical link and a broadcast logical link. ● Support optical link DDM.
Switching	● Support IEEE 802.3 frames and Ethernet II-type frames. ● Support MTU to be 1518 or 1596, with MTU being 1596 by default. ● Support rate limiting on the interface. ● Support storm control over broadcast, multicast, and DLF packets on the interface. ● Support auto-negotiation of the interface rate and duplex mode, and support configuring flow control. ● Support a MAC address table capacity of 16K.

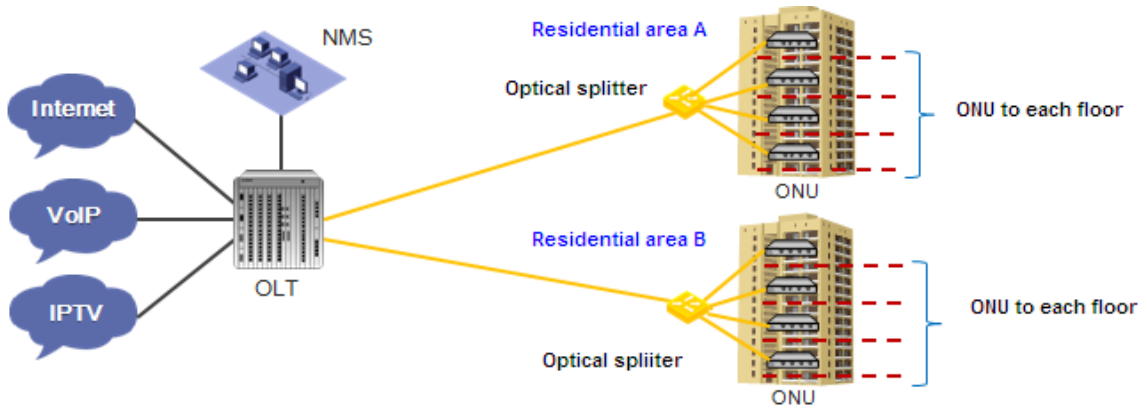
Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

	• Support MAC address learning, aging time, MAC address limit, and static MAC address. • Support IEEE 802.1Q standard VLAN. • Support 4094 VLANs ranging from VLAN 1 to VLAN 4094. • Support configuring VLAN mode to transparent transmission, Tag, Trunk, VLAN mapping, and aggregation.. • Support transparent transmission of packets from the uplink interface of the switching chip and configuring Trunk VLAN mode. • Support configuring VLAN mapping rules. • Support configuring aggregation rules. • Support configuring VLAN stacking and selective QinQ. • Support interface loop detection between two UNIs on an ONU or UNIs on different ONUs (excluding the loop between uplink interfaces on an ONU). • Support statistics of interface performance (including uplink interfaces of the switching chip). • Support RSTP. • Support discovery and management of partner devices. Support configuring and querying SNMP parameters. • Support port mirroring. • Support PPPoE Relay. • Support DHCP Snooping and DHCP Relay. • Support Link Trace of MAC addresses (for independent network management only). • Support the IP address pool (to be cooperated with the OLT). • Support interface loopback. • Support link aggregation. • Support SEP and maximum UNI uplink (replacing PON uplink).

QoS & ACL	● Support 4 priority queues. ● Support SP and WRR, and hybrid (SP+WRR) algorithms. ● Support Layer 2, Layer 3, and Layer 4 traffic classification. ● Support Layer 2, Layer 3, and Layer 4 filtering rules. ● Support Layer 2, Layer 3, and Layer 4 priority mapping.
Multicast	● Support transparent transmission of multicast packets, IGMP Snooping, and CTC controllable multicast mode. ● Support the capacity of the multicast address table to be 128.
Management	● Support OLT OAM remote management, complying with CTC v2.1 technical specifications. ● Support independent network management mode. Support SNMP v1, and v2 and reporting SNMP Trap. To use independent network management mode, you must disable loading configurations of the OLT (namely, SNMP management mode). ● Support managing Web page (IE 6.0 or later; Firefox 2.0 or later). ● Support local CLI management (Telnet and Console login). ● Support standard MIB RFC1213, RFC2233 system management table, and interface management table. Support using the third-party network management tool (such as solarwinds 8.5 or above) for management. ● Support saving, uploading, and downloading the configuration file. Support restoring default configurations.
Interface indexes	
EPON interface	● Interface type: SC/PC ● Transmission rate: 1.25 Gbit/s ● Central wavelength: 1310 nm in Tx and 1490 nm in Rx ● Tx optical power: -1 to 4 dBm ● Maximum Rx sensitivity: -27 dBm

	● Overload optical power: -3 dBm
FE interface	● Interface type: RJ45 ● Transmission rate: 10/100 Mbit/s auto-negotiation ● Duplex mode: full/half mode auto-negotiation

▼ Typical applications



Introduction

- The MDU can be directly used to reach households through the Cat 5 cable, making it unnecessary to connect to the switch.
- FTTB can simplify network hierarchies, decrease fault point to facilitate future maintenance, and reduce customers' maintenance cost.
- The low-powered, fan-free, and small-sized MDU can be deployed in corridor cross-connecting cabinets, basement, and low-voltage silo. It can be used to reuse the existing corridor wiring system, so as to facilitate customers in lowering cost.
- Multiple management modes, such as OAM/SNMP/WEB, can meet customers' requirements on managing various terminals.
- The MDU with multiple interfaces supports sound multicast and activation of complex services in the future.

Ordering information

Model	Version	Description
ISCOM5116-AC	C	1 EPON interface, sixteen 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface and single 220 VAC power
ISCOM5116-AC60	C	1 EPON interface, sixteen 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface, and single 60 VAC power
ISCOM5116-DC	C	1 EPON interface, sixteen 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface and single -48 VDC power
ISCOM5116-DC (+24V)	C	1 EPON interface, sixteen 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface, and single 24 VDC power

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

ISCOM5124S ONU

Introduction

The ISCOM5124S is a low-cost MDU with metallic shell, 24 FE interfaces in downlink, 1 EPON in uplink, and high price performance ratio. It is mainly used in the FTTB access scenario and its cost is much lower than that in PON+LAN networking.

Figure 1 ISCOM5124S

Features

- **Sound design**
  - Adopt single-panel cable outlet (power interface and service interfaces are on the same panel, namely, front panel) to facilitate installation and cable outlet.
  - Support wall-mount and rack installation to facilitate installation and deployment.
  - Adopt a fan-free and noise-free design.
  - Adopt a small chassis to be easily installed in multiple forms of cross-connecting cabinets.
  - Adopt the metal MDU, sturdy and durable, embedded with power supply, high safety protection level, high lightning protection level, and good quality.
  - Adopt multiple power supplies (220 VAC, 60 VAC, -48 VDC, 24 VDC), used in various scenarios.
  - Adopt a new design with price-performance ratio, able to be used in FTTB networking to replace the PON+LAN networking, thus saving cost.
- **Uniform network management and easy operation and maintenance**
  - Support multiple management modes (Telnet, local serial interface, Web, SNMP, and OAM) to facilitate login and management.
  - Support batch configuration, template-based configuration, offline configuration, and plug and play of ONUs, to facilitate service activation.
  - Support reporting various alarms (Dying Gasp, optical link DDM, loop, etc.) to facilitate locating and clearing faults.
  - Support the NView NNM system (which can manage all Raisecom devices), in which all services can be configured.

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

▼ Specifications

Hardware features	
Dimensions	43.6 mm (Height) × 320 mm (Width) × 220 mm (Depth)
Weight	About 1.7 kg
Power supply	● Single power supply 220 VAC ● Single power supply 60 VAC ● Single power supply -48 VDC ● Single power supply 24 VDC
Power consumption	15 W
Operating environment	● Operating temperature: 0–50 ℃ ● Humidity: 10%–90% (non-condensing)
Storage environment	● Storage temperature: -25 to 60 ℃ ● Storage humidity: 10%–90% (non-condensing)
Dustproof level	IP20
Software features	
PON features	● Support being discovered and registered. ● Support IEEE 802.3ah MPCP. ● Support IEEE 802.3ah OAM. ● Support CTC EPON technical specifications. ● Support SCB. ● Support a unicast logical link and a broadcast logical link. ● Support optical link DDM.
Switching	● Support IEEE 802.3 frames and Ethernet II-type frames. ● Support MTU to be 1518 or 1596, with MTU being 1596 by default. ● Support rate limiting on the interface. ● Support storm control over broadcast, multicast, and DLF packets on the interface. ● Support auto-negotiation of the interface rate and duplex mode, and support configuring flow control. ● Support a MAC address table capacity of 16K.

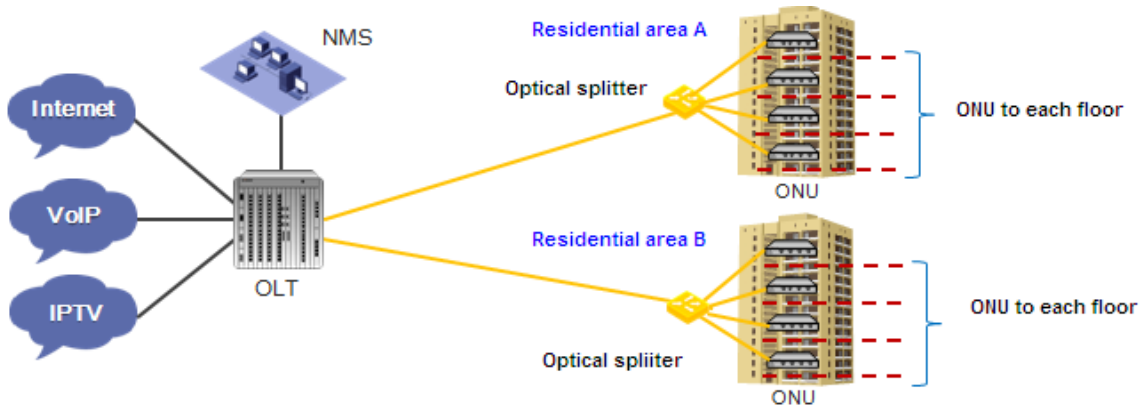
Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com

	• Support MAC address learning, aging time, MAC address limit, and static MAC address. • Support IEEE 802.1Q standard VLAN. • Support 4094 VLANs ranging from VLAN 1 to VLAN 4094. • Support configuring VLAN mode to transparent transmission, Tag, Trunk, VLAN mapping and aggregation. • Support transparent transmission of packets from the uplink interface of the switching chip and configuring Trunk VLAN mode. • Support configuring VLAN mapping rules. • Support configuring aggregation rules. • Support configuring VLAN stacking and selective QinQ. • Support interface loop detection between two UNIs on an ONU or UNIs on different ONUs (excluding the loop between uplink interfaces on an ONU). • Support statistics of interface performance (including uplink interfaces of the switching chip). • Support RSTP. • Support discovery and management of partner devices. Support configuring and querying SNMP parameters. • Support port mirroring. • Support PPPoE Relay. • Support DHCP Snooping and DHCP Relay. • Support Link Trace of MAC addresses (for independent network management only). • Support the IP address pool (to be cooperated with the OLT). • Support remote loopback on the interface. • Support link aggregation.

	● Support SEP and maximum UNI in uplink (replacing the PON interface in uplink).
QoS & ACL	● Support 4 priority queues. ● Support SP, WRR, and hybrid (SP+WRR) algorithms. ● Support Layer 2, Layer 3, and Layer 4 traffic classification. ● Support Layer 2, Layer 3, and Layer 4 filtering rules. ● Support Layer 2, Layer 3, and Layer 4 priority mapping.
Multicast	● Support transparent transmission of multicast packets, IGMP Snooping, and CTC controllable multicast mode. ● Support the capacity of the multicast address table to be 256.
Management	● Support OLT OAM remote management, complying with CTC v2.1 technical specifications. ● Support independent network management mode. Support SNMP v1, and v2 and reporting SNMP Trap. To use independent network management mode, you must disable loading configurations of the OLT (namely, SNMP management mode). ● Support managing Web page (IE 6.0 or later; Firefox 2.0 or later). ● Support local CLI management (Telnet and Console login). ● Support standard MIB RFC1213, RFC2233 system management table, and interface management table. Support using the third-party network management tool (such as solarwinds 8.5 or above) for management. ● Support saving, uploading, and downloading the configuration file. Support restoring default configurations.
Interface index	
EPON interface	● Interface type: SC/PC ● Transmission rate: 1.25 Gbit/s ● Central wavelength: 1310 nm in Tx and 1490 nm in Rx

	● Tx optical power: -1 to 4 dBm ● Maximum Rx sensitivity: -27 dBm ● Overload optical power: -3 dBm
FE interface	● Interface type: RJ45 ● Transmission rate: 10/100 Mbit/s auto-negotiation ● Duplex mode: full/half mode auto-negotiation

▼ Typical applications



Introduction

- The MDU can be directly used to reach households through the Cat 5 cable, making it unnecessary to connect to the switch.
- FTTB can simplify network hierarchies, decrease fault point to facilitate future maintenance and reduce customers' maintenance cost.
- The low-powered, fan-free, and small-sized MDU can be deployed in corridor cross-connecting cabinets, basement, and low-voltage silo. It can be used to reuse the existing corridor wiring system, so as to facilitate customers in lowering cost.
- Multiple management modes, such as OAM/SNMP/WEB, can meet customers' requirements on managing various terminals.
- The MDU with multiple interfaces supports sound multicast and activation of complex services in the future.

Ordering information

Model	Version	Description
ISCOM5124S-AC	C	1 EPON interface, twenty-four 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface and single 220 VAC power
ISCOM5124S-AC60	C	1 EPON interface, twenty-four 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface, and single 60 VAC power
ISCOM5124S-DC	C	1 EPON interface, twenty-four 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface and single -48 VDC power
ISCOM5124S-DC (+24V)	C	1 EPON interface, twenty-four 10/100 Mbit/s Ethernet interfaces, SC/PC optical interface and single 24 VDC power

Address: Raisecom Building, No. 11, East Area, No. 10 Block, East Xibeiwang Road, Haidian District, Beijing, P.R.China
Tel: 8610-82883305 Fax: 8610-82883056
Website: http://www.raisecom.com Email: export@raisecom.com