



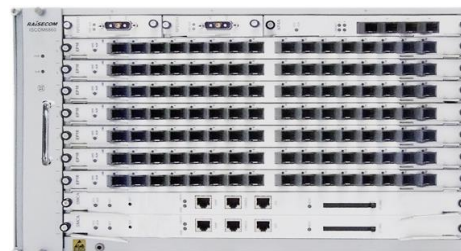
## ISCOM6860 xPON OLT

The ISCOM6860 is a high-density carrier-grade Optical Line Terminal (OLT) platform. It offers EPON, 10G EPON, GPON, XG-PON\* and leased line access, as well as multi-service aggregation capabilities.

The ISCOM6860 is equipped with high backplane bandwidth of 2.88Tbit/s, high switching capacity of 1.28Tbit/s, and 1:1 switching redundancy for wire-rate non-blocking forwarding and high reliability for all services. It can provide high-density PON interfaces to meet the carrier's need for high-capacity with fewer offices. Cards and fans adopt green energy-saving design to lower power consumption and emissions.

The ISCOM6860 is perfect for FTTx, HFC bidirectional transformation, mobile backhaul, IP leased line interconnections, and more applications.

ISCOM6860



### Highlights >>

#### Compact and High Bandwidth

- 6U high, 13 slots, 2 SMCs, 7 general service cards, 1 dedicated 10GE uplink card, with 80G bandwidth per slot, and support Layer 2 and Layer 3 wire-speed forwarding.
- Up to 112 EPON/GPON/XG-PON interfaces or 56 10GE PON interfaces
- Support GE/10GE uplink interface
- Support accessing broadband, voice, IPTV, etc. services to meet various accessing applications of carriers, broadcast, radio, and television network, and customer premise network..

#### Carrier-Grade Reliability

- MCU 1+1 protection, 1+1 power supplying.
- Type B/C/D PON protection and carrier-grade switching
- Support G.8032 Ethernet Ring Protection Protocol

#### Abundant Carrier Features

- VLAN, including selective QinQ, VLAN mapping and aggregation.
- Complete QoS, including Dynamic Bandwidth Assignment (DBA), priority control, multiple traffic classification modes and multiple queue scheduling modes, thus meeting different QoS requirements on VoIP, video, and Internet access services
- Complete ACL, including L2, L3, L4, and user-defined ACLs.
- Static multicast, IGMP Snooping, Proxy, MVR, and controllable multicast.
- Static routing
- Link aggregation, DHCP, interface isolation, etc.

#### Energy-Saving Design

- Low power consumption design for the MCC and service cards, with overall power consumption less than 900 W.
- An intelligent fan adjusts rotational speed according to temperature, prolonging fan life, reducing noise, and saving energy.
- Supports powering off the PON cards and uplink cards to save energy.

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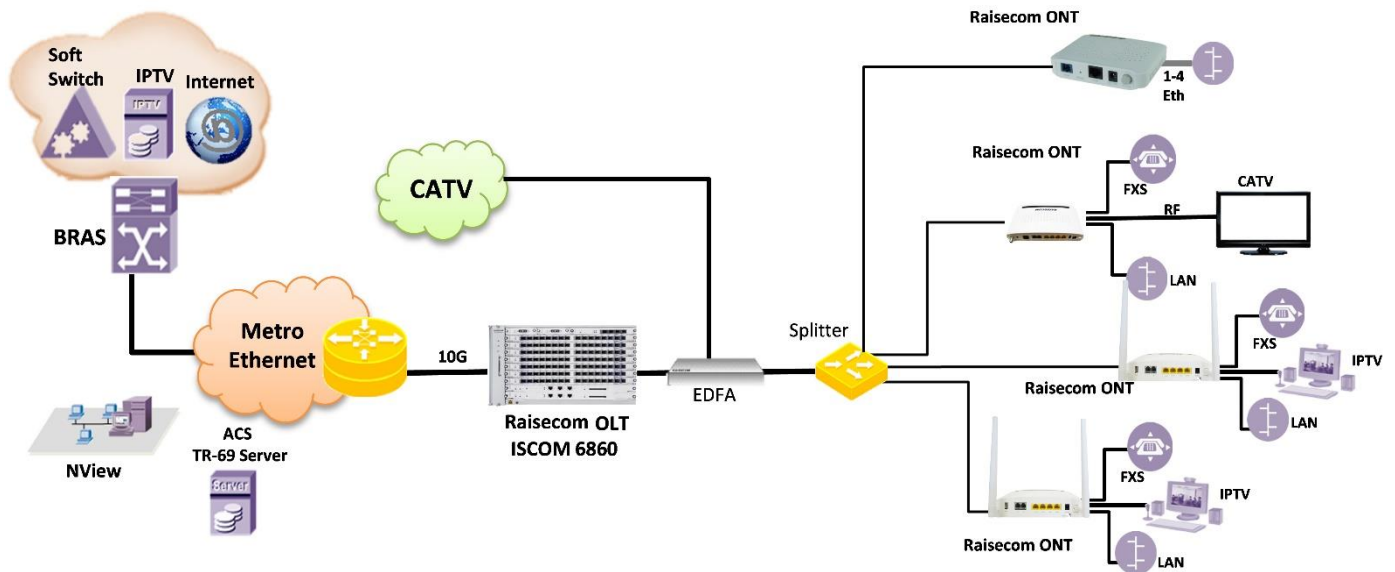
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Application >>

Figure.1 xPON comprehensive access solution



**FTTH Access**

Provide video, data, and voice services for newly-built residential areas, villas, and network reconstruction of old residential areas

**FTTB Access**

The ONU is downlink connected to the LAN switch in a tree structure. LAN switches work independently without affect each other.

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## Key Features >>

Switching Capacity	1.28Tbps
Backplane Bandwidth	2.88Tbps
EPON/10GEPON	<ul style="list-style-type: none"> <li>● ONU authorization mode: automatic, MAC,SN, password, SN+password</li> <li>● IEEE 802.3 ah OAM</li> <li>● Bi-directional FEC</li> <li>● Bi-directional encryption and triple agitating encryption</li> <li>● Type B protection</li> </ul>
GPON	<ul style="list-style-type: none"> <li>● 512 T-CONTs and 4K GEM ports per GPON port</li> <li>● ONU authorization mode: automatic, SN, LOID, password, SN+password and LOID+password</li> <li>● Bi-directional FEC</li> </ul>
MAC	<ul style="list-style-type: none"> <li>● 8K mac address per PON port, 128K mac address for the whole system</li> <li>● 256 static mac address per PON port, 1000 static mac address for the whole system</li> <li>● Static unicast and multicast mac address configuration</li> <li>● Enable/disable MAC address learning based on port</li> <li>● MAC address display, statistics, clear and search</li> <li>● MAC threshold based on port/LLID</li> <li>● MAC address tracking</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>● 4K VLAN</li> <li>● Access, trunk mode</li> <li>● Basic QinQ based on port/LLID</li> <li>● VLAN ACL rules, including add inner/outer VLAN, delete inner/outer vlan, inner/outer vlan mapping and modify COS of outer vlan</li> <li>● 1:1 /N:1 VLAN translation</li> <li>● VLAN translation based on ACL/egress/ingress port</li> </ul>
Route	<ul style="list-style-type: none"> <li>● Static route</li> <li>● Static ARP table entry</li> </ul>
Multicast	<ul style="list-style-type: none"> <li>● Multicast IPv4/v6</li> <li>● 1024 multicast group</li> <li>● 10240 dynamic multicast entries</li> <li>● Static multicast</li> <li>● IGMP snooping v1/v2/v3</li> <li>● MLD snooping v1/v2</li> <li>● IGMP/MLD proxy v1/v2/v3</li> <li>● MVR</li> <li>● Dynamic controllable multicast</li> </ul>
ACL	<ul style="list-style-type: none"> <li>● ACL based on VLAN/IP/ingress/ egress port</li> </ul>

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	<ul style="list-style-type: none"> <li>● Customized ACL</li> </ul>
Link Aggregation	<ul style="list-style-type: none"> <li>● Up to 32 link aggregation groups, 8 GE interfaces (including 10GE interface) by each group.</li> <li>● Support 6 load balancing modes based on MAC address and IP address</li> <li>● Support LACP</li> </ul>
QoS	<ul style="list-style-type: none"> <li>● Interface-based queue scheduling and rate limiting. Each interface supports 8 priority queues.</li> <li>● Support SP, WRR, WDRR, and SP+WRR queue scheduling modes</li> <li>● Trust CoS and DSCP priority. Support flexible mapping from CoS to queue and DSCP to queue.</li> <li>● CoS (802.1p) priority remark.</li> <li>● Support configuring CoS or DSCP priority for packets that matching ACL rules</li> <li>● Packet redirection, traffic mirroring, traffic statistics, traffic monitoring, interface queue scheduling, interface rate limiting, priority policies, and VLAN modification policies based on traffic rule.</li> <li>● Modifying 802.1p CoS, DSCP, and IP precedence based on flow.</li> </ul>
DHCP	<ul style="list-style-type: none"> <li>● DHCP snooping v4/v6</li> <li>● DHCP relay</li> <li>● DHCP option82</li> </ul>
Interface Isolation	<ul style="list-style-type: none"> <li>● Interface isolation in one card or different cards</li> <li>● Interface isolation of same VLAN in one card or different cards</li> <li>● Isolation among different ONTs connecting in one PON port</li> </ul>
Security	<ul style="list-style-type: none"> <li>● IP Source guard</li> <li>● ARP inspection</li> <li>● Anti-DoS attack</li> <li>● PPPoE+</li> <li>● Multicast, broadcast and DLF storm control</li> </ul>
Management	<ul style="list-style-type: none"> <li>● Console, Telnet, SSH and SNMP(v1/v2/v3)</li> <li>● RADIUS, TACACS+</li> <li>● Managed by GUI-based RC NView NNM platform</li> <li>● Memory, CPU monitoring and file system management</li> <li>● Ping and traceroute</li> </ul>
MTBF	100,000 hours

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## Specifications >>

Number of slots	13
Number of MCCs	2
Number of PON cards	<ul style="list-style-type: none"> <li>7,16*EPON/16*GPON/XG-PON/8*10 GE PON per card</li> <li>Ratio: 1:128 for GPON, 1:64 for EPON/10GE PON</li> </ul>
Number of uplink cards	8. slot10 only for 10GE card
Number of PON ports	112*EPON/GPON/XG-PON、56*10GE PON
Number of GE ports	112
Number of 10GE ports	32
Number of Fan	1
Power supply	DC power: -48V, voltage range: -38.4V~-57.6V
Dimensions	440mm(L) × 233mm(W) × 578.5mm(H) (13U, including air outlet frame)
Power Consumption	<900W
Weight	<22.2KG
Environment	<ul style="list-style-type: none"> <li>Operating temperature: 0~45°C</li> <li>Operating humidity: 10%~90% RH (non-condensing)</li> </ul>

## Compliances >>

Standards & protocols	<p>IEEE802.3ad Link Aggregation</p> <p>IEEE 802.3x</p> <p>IEEE802.1p</p> <p>IEEE802.1Q VLAN</p> <p>IEEE802.1ad QinQ</p> <p>ITU-T 984/988/987</p> <p>IGMP v1/v2/v3</p> <p>SNMP v1/v2c/v3</p> <p>CE compliance</p> <p>UL compliance</p> <p>EMC Class B</p> <p>RoHS compliance</p>
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## Ordering Information >>

ISCOM6860-10	ISCOM6860 chassis.(without Fan, need to order ISCOM6860-10-FANS381 separately )
ISCOM6860-10-FANS381	Intelligent FAN module, working in slot 13. (only for ISCOM6860)
ISCOM6800-SMCA	Switching and control card, working in slot 1 or 2. 1 Console (RJ45) for local management and 1 SNMP (RJ45) for out-of-band management.
ISCOM6800-EP16	GE PON line card, 16* GE PON SFP ports, working in slot 3-9. (without SFP modules)
ISCOM6800-GP16	GPON line card, 16* GPON SFP ports, working in slot 3-9. (without SFP modules)
ISCOM6800-XEP8	10GE PON card, 8* 10GE PON XSFP ports, working in slot 3-9.(without SFP modules)
ISCOM6800-GE16	GE card, 16* GE SFP ports, slot 3-9. (without SFP modules)
ISCOM6800-XP4A	10GE card, 4* 10GE SFP+ ports, working in slot 10. (without SFP modules)
ISCOM6800-XP2A	10GE card, 2* 10GE SFP+ ports, working in slot 10. (without SFP modules)
ISCOM6800-XP4L	10GE card, 4*10GE SFP+ ports, working in slot 3-9.(without SFP modules)

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**RPD2151-48S48**

DC -48v power supply card, working in slot 11-12

**RPA2162-S-220S54**

1U, 19" mountable rack rectifier. AC/DC embedded power system supplies -48VDC and max 1600W output by 110/220VAC input power (SISO).

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