



ISCOM6820-GP OLT

The ISCOM6820-GP is a next-generation, compact, small-capacity, 2U GPON OLT with a card plug-in design intended for industrial and rural networking. It provides abundant functions and flexible networking modes that meet the requirement for low-density and long-distance fiber access. It is perfect for low-density coverage area, outdoor applications, limited installation space, and long distance coverage.

The ISCOM6820-GP features a high backplane bandwidth of 320Gbit/s, strong switching capacity of 200Gbit/s, non-blocking forwarding performance for all services, and high reliability. Cards and fans all adopt an energy-saving design to reduce power consumption and emissions.

ISCOM6820-GP



ISCOM 6820-GP slot diagram

Fan module (Slot 6)	Expansion service slot (Slot 4)			
	Basic service card (Slot 3)			
	Main control uplink card (Slot 1)	Main control uplink card (Slot 2)	Power card (Slot 5)	Power card (Slot 7)

Highlights >>

Compact and High

Bandwidth

- 2U high with 7 slots. Supports dual Main Control Cards (MCCs). Provide 1 basic slot (16 GPON interfaces) and 1 expansion slot (support 16 GPON or GE interfaces). The expansion/MCC slots support 80/40Gbit/s bandwidth and L2 wire-speed forwarding.
- The entire device provides 16 or 32 PON ports and 4096 GPON ONTs and supports 10 GE uplink interfaces.
- Supports multi-service access, such as internet, voice, and IPTV, applicable to multiple access scenarios, such as carrier, Broadcast & TV network, ISPs and MSOs

Carrier-Grade Reliability

- MCC 1+1 redundancy protection and hot swapping for all cards
- Class B PON protection and carrier-grade switching performance.

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.
- 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 200 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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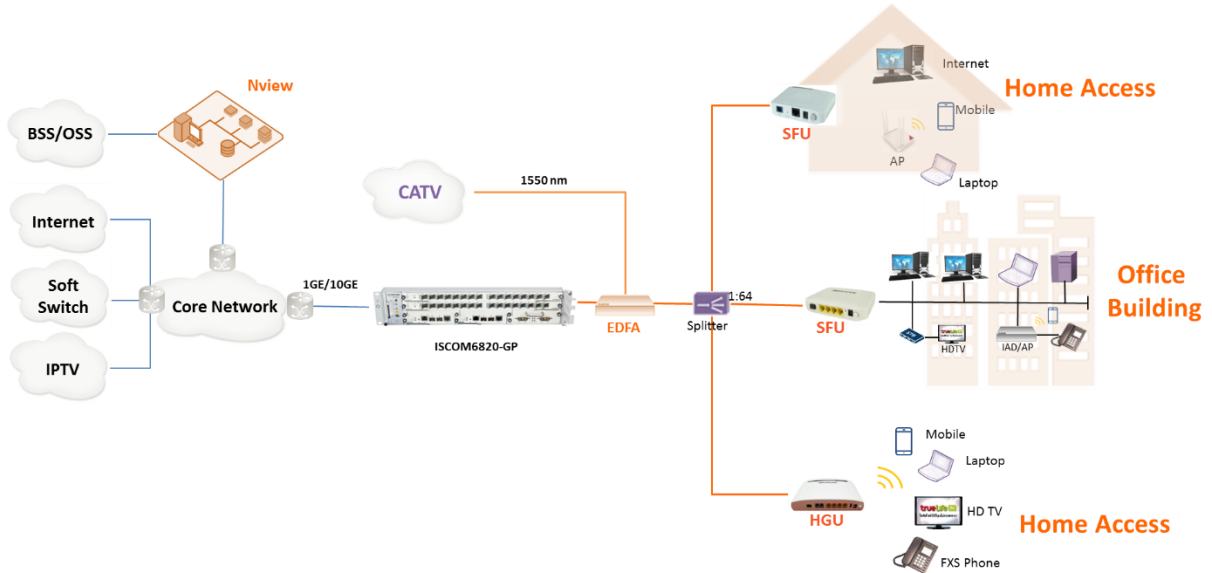
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Application >>

Figure.1 GPON comprehensive access solution



FTTH Access

The ISCOM6820-GP is very suitable for customers, such as carriers and premise network, to provide low-density user areas, such as villa districts, outskirts, towns, and countryside with typical bandwidth access, IPTV, voice and video monitoring services..

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Key Features >>

Switching Capacity	200Gbps
Backplane Bandwidth	320Gbps
GPON	<ul style="list-style-type: none">● 512 T-CONTs and 4K GEM Port per GPON port● ONU authorization mode: automatic, SN, LOID, password, SN+password and LOID+password● Bi-directional FEC
MAC	<ul style="list-style-type: none">● 32K mac address table● 1024 static unicast mac address● 1024 static multicast mac address● Enable/disable MAC address learning based on port
VLAN	<ul style="list-style-type: none">● 4K VLAN● Access, trunk mode● Basic and flexible QinQ● 1:1 VLAN translation● N:1 VLAN aggregation
Route	<ul style="list-style-type: none">● IPv4/IPv6 static route● Static ARP table entry
Multicast	<ul style="list-style-type: none">● Static multicast● IGMP snooping v1/v2/v3● MLD snooping v1/v2● IGMP/MLD proxy● MVR● Dynamic controllable multicast● Multicast VLAN● Support 4K multicast entries.
ACL	<ul style="list-style-type: none">● ACL based on MAC/ IP/ egress port● ACL MAP● Customized ACL
Link Aggregation	<ul style="list-style-type: none">● Up to 32 link aggregation groups, 8 GE interfaces (including 10GE interface) by each group.● Support 6 load balancing modes based on MAC address and IP address● Support LACP
QoS	<ul style="list-style-type: none">● Interface-based queue scheduling and rate limiting. Each interface supports 8 priority queues.● Support SP, WRR, WDRR, and SP+WRR queue scheduling modes● Trust CoS and DSCP priority. Support flexible mapping from CoS to queue and DSCP to queue.● Packet redirection, traffic mirroring, traffic statistics, traffic monitoring, interface queue scheduling, interface rate limiting, priority policies, and VLAN modification policies based on traffic rule.● Modifying 802.1p CoS, DSCP, and IP precedence based on flow.

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DHCP	<ul style="list-style-type: none"> ● DHCP snooping v4/v6 ● DHCP relay ● DHCP option82
Flow control	IEEE 802.3x flow control
Security	<ul style="list-style-type: none"> ● TACACS+ ● Multicast, broadcast and DLF storm control ● Interface isolation
Management	<ul style="list-style-type: none"> ● Console, Telnet, SSH and SNMP(v1/v2/v3) ● Managed by GUI-based RC NView NNM platform ● Memory, CPU monitoring and file system management ● Ping and traceroute
MTBF	100,000 hours

Specifications >>

Number of slots	7
Number of MCC	2, 2 10GE uplink interfaces per card
PON interface	<ul style="list-style-type: none"> ● Up to 32 GPON SFP interfaces ● Ratio: 1:128
GE interface	Up to 16 GE SFP interfaces
Number of Fan	1
Power supply	<ul style="list-style-type: none"> ● AC power: 100V/220V, Voltage range: 100V~240V ● DC power: -48V, voltage range: -38.4V~-57.6V
Dimensions	442mm(L) × 236mm(W) × 88mm(H)
Power Consumption	<200W
Weight	<9kg
Environment	<ul style="list-style-type: none"> ● Operating temperature: -5~60°C ● Operating humidity: 10%~90% RH (non-condensing)

Compliances >>

Standards & protocols	<ul style="list-style-type: none"> IEEE802.3ad Link Aggregation IEEE 802.3x IEEE802.1p IEEE802.1Q VLAN IEEE802.1ad QinQ ITU-T 984/988 IGMP v1/v2/v3 SNMP v1/v2c/v3 CE compliance UL compliance EMC Class B RoHS compliance
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Ordering Information >>

ISCOM6820-GP-AC	GPON OLT SYSTEM, Including: ISCOM6820 Chassis *1 + ISCOM6820-MCUA *1 + ISCOM6820-GPSC *1+ RPA1302-220D4805 *1 + ISCOM6820-3-FANS380 *1 (16* GPON SFP ports, 2* 10GE(SFP+), 1* fan, 1* AC input, without SFP modules) Optional: slot 2&4 are vacant, ISCOM6820 MCUA workable in slot 2 and GP16 workable in slot 4, 32 GPON in Max
ISCOM6820-GP-DC/D	GPON OLT SYSTEM Including: ISCOM6820 Chassis *1 + ISCOM6820-MCUA *1 + ISCOM6820-GPSC *1 + RPD1303-48D4805 *2 + ISCOM6820-3-FANS380 *1+ ISCOM6820-APWR*1 (16* GPON SFP ports, 2* 10GE(SFP+), 1* fan, 2* DC input by two separated power cards , without SFP modules) Optional: slot 2&4 are vacant, ISCOM6820 MCUA workable in slot 2 and GP16 workable in slot 4, 32 GPON in Max
ISCOM6820-MCUA	MCU & Uplink card, slot 1&2. Providing 2*10G SFP+ ports (1000M/s is supported in slot 1 only), 1 Console (RJ45) for local management and 1 SNMP (RJ45) for out-of-band management. (without SFP modules)
ISCOM6820-GPSC	Basic service card, 16*GPON SFP ports, integrated with main controller, Slot 3 only. For spare parts ordering. (without SFP modules)
ISCOM6800-GP16	GPON card, 16* GPON SFP ports, slot 4 only.(without SFP modules)
ISCOM6800-GE16	GE card, 16* GE SFP ports, slot 4 only. (without SFP modules)
RPA1302-220D4805	110V/220V AC power module (single input), slot 5, for spare parts ordering.
RPD1303-48D4805	-48V DC Power module (single module, single input), slot 5&7, for spare parts ordering.
ISCOM6820-APWR	Dual DC power module tray, for spare parts ordering.
ISCOM6820-3-FANS380	Intelligent fan (only for ISCOM6820), for spare parts ordering.
PAD500-220S48	1U, 19" mountable rack rectifier chassis. Totally 2 slots for AC/DC pluggable rectifier module RPA1501-S-220S48. Each slot supplies -48VDC and max 500W output by 110/220 VAC power input (SISO). The RPA1501-S-220S48 must be ordered separately. (Only for ISCOM6820)
RPA1501-S-220S48	AC/DC pluggable rectifier module, supplies -48VDC and max 500W output by 110/220 VAC power input (SISO). Must work with PAD500-220S48 together.(Only for ISCOM6820)

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