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ISCOM6810-GP

The ISCOM6810-GP is a series of small-capacity enhanced GPON cartridge optical access office device launched by Raisecom Technology Co., Ltd. Its power supply and fan adopt modular design, so they are easy to be installed and deployed. It has strong GPON access capabilities and carrier-grade reliability, supports strong security functions (such as ACL and DoS attack prevention) and flexible QinQ service capabilities, and provides good management, maintenance and monitoring functions.

The ISCOM6810-GP provides rich service features and flexible networking methods to meet the needs of low-density, long-distance optical access.

ISCOM6810-GP8

ISCOM6810-GP16

Highlights >>

High integrity and flexible networking

- The 1U height and modular design facilitates the installation and replacement of components.

- Support 8/16 GPON interfaces. Support four 10GE optical interfaces and 2 GE electrical interfaces; Support wire-speed forwarding.

- Provide users with access to broadband, voice, IPTV and other services, thus meeting access applications in multiple scenarios for carriers, broadcasting network, CPN, and other industries.

- The remote area can be covered by OLT cascading. The OLTs works at the edge to form a chain connection, which is suitable for long-distance broadband access scenarios and saves backbone fiber resources.

Carrier-grade reliability

- Support 1+1 power supply protection

- Support the Ethernet ring network with the switching time of 50ms.

Rich features

- Powerful VLAN processing capabilities, including selective QinQ, VLAN mapping, and VLAN aggregation

- Complete QoS functions, including DBA, superior control, multiple traffic classification mechanisms, multi-queue scheduling, and other technologies, to meet the different QoS requirements of VoIP, video, and Internet services

- Complete ACL functions, including L2, L3, L4 and user-defined ACLs

- IGMP/MLD Snooping, Proxy, MVR, and controllable Multicast

- IPv4/IPv6 dual-stack and IPv4/IPv6 dynamic routing protocols

- STP/MSTP, link aggregation, DHCP, interface isolation, and other common functions

Green and energy-saving design

- The main control card and service cards are designed with low energy consumption, and the power consumption of the entire device is less than 70 W.

- The fan can be intelligently adjusted according to the temperature, improving the fan life, reducing wind noise, and implementing energy saving.

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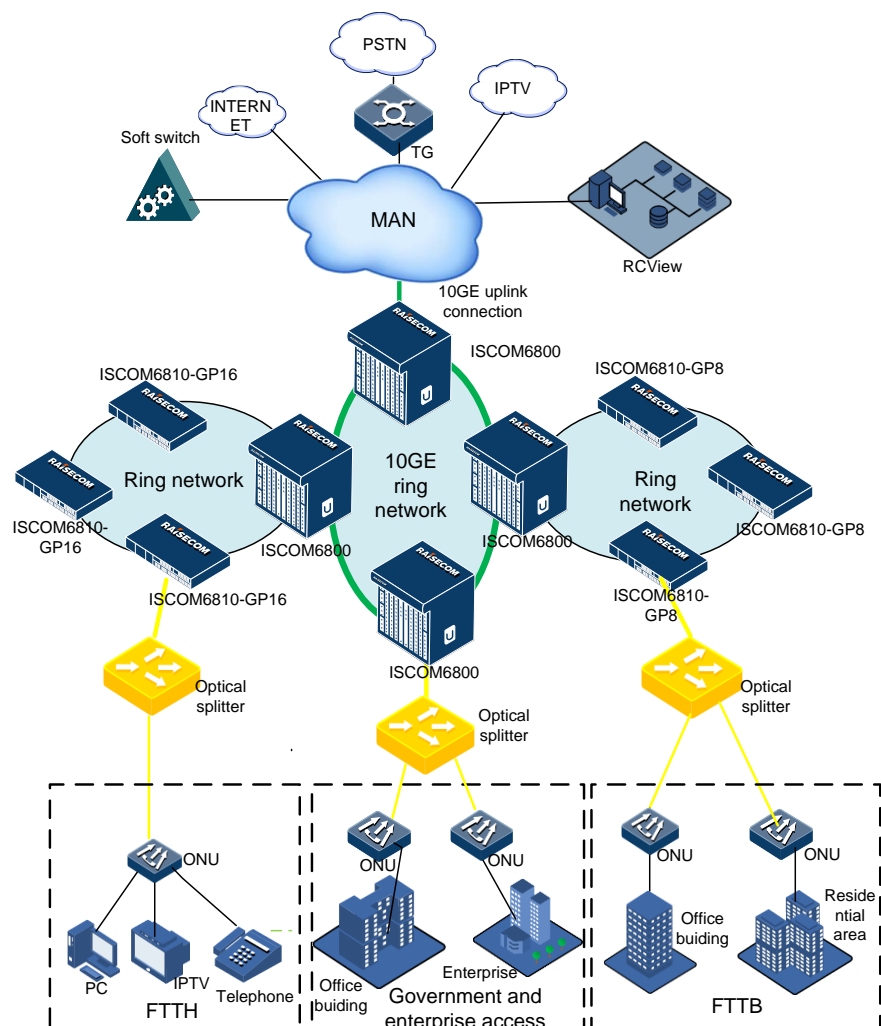Raisecom Technology Co., Ltd

Application >>

Figure 1 Ring network with the ISCOM6810-GP and ISCOM6800

In this application scenario, the ISCOM6810-GP devices can form an Ethernet ring network with the Raisecom ISCOM6800 to provide customers with reliable access services. At the same time, the ISCOM6800 devices at each regional aggregation point can form a 10G Ethernet ring network (the switching time is less than 50ms), which not only provides the function of ring network protection, but also saves backbone optical fiber resources and meets customers' needs for high-bandwidth transmission.

The ISCOM6810-GP is suitable for carriers and ISP customers in low-density user areas, such as villas, suburbs, towns, and rural areas, and provides various typical services for accessing broadband, IPTV, leased line, and video monitoring.

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Key features >>

MAC	• Support automatically learning and aging MAC addresses. • Support static, dynamic, and blackhole MAC addresses. • Support filtering packets with specified source MAC addresses. • Support MAC address limit based on interface and VLAN.
VLAN	• Support 4K VLANs. • Support basic QinQ. • Support Selective QinQ. • Support VLAN mapping.
Routing	• Support RIP, OSPF, ISIS, BGP, and other IPv4 dynamic routing protocols. • Support RIPng, OSPFv3, ISISv6, BGP4+, and other IPv6 dynamic routing protocols.
Multicast	• Support static multicast. • Support IGMP v1/v2/v3, IGMP v1/v2/v3 Snooping, and MLD Snooping. • Support MVR (inter-VLAN copy) and MVR Proxy. • Support controllable multicast. • Support multicast policies and multicast QoS.
QOS&ACL	• Support Ingress/Egress ACL. • Support priority mapping. Each interface supports 8 queues. • Support combined traffic classification based on L2/L3/L4 protocols and 802.1p priority. • Support ACL, CAR, Remark, Schedule, and other actions. • Support SP, WRR, DRR, SP+WRR, and SP+DRR queue scheduling modes. • Support traffic shaping.
Link aggregation	• Support six load balancing modes based on MAC address or/and IP address. • Support LACP.
Security	• Support AAA/RADIUS. • Support TACACS+. Support local authentication. • Support 802.1x authentication. • Support MAC address authentication. • Support SSHv2, SFTP, and HTTPS. • Support hierarchical command protection to prevent unauthorized users from accessing illegally and to configure different privileges for users of different levels. • Support storm control based on interface and VLAN. • Support the whitelist, port security MAC, and MAC address limit. • Support IP Source Guard. Support DoS attack prevention, ARP attack prevention, TCP SYN Flood attack

	prevention, UDP Flood attack prevention, broadcast storm attack prevention, and massive traffic attack prevention.
Loop guard	● Support STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s). ● Support BPDU guard, Root guard, and loop guard. ● Support ERPS (G.8032).
Management and maintenance	● Support login from the Console interface. ● Support SNMP v1/v2c/v3. ● Support the RCView NMS. ● Support the uniform user management, and group-based, domain-based, and time-based authorization. ● Support system logs and hierarchical alarms. ● Support RMON.

Specifications >>

Slots	4
Main control uplink card	1 (removable)
Switching capacity	● ISCOM6810-GP8: 124Gbps ● ISCOM6800-GP16: 164Gbps
MAC addresses	64K
Forwarding rate	Wire-speed forwarding on all interfaces
PON interfaces	● ISCOM6810-GP8: 8*GPON ● ISCOM6800-GP16: 16*GPON
PON optical splitting ratio	1:128
Fans	1
Power supply	AC: 110/220 V; voltage range: 100–240 V (50/60 Hz) DC: -48/-60 V; voltage range: -36 to -72 V
Dimensions	440mm (Width) × 266 mm (Depth) × 44.5 mm (Height)
Environment	Operating temperature: -10 to 55 ℃ Operating humidity: 10%–90% RH (non-condensing)
Weight	< 5.9 kg
Maximum power consumption	< 70 W

Standards and protocols >>

Standards and protocols	Support ITU-T 984/988 ETSI EN 300 019-1-1~3 IEC 60068-2 IEC 60721-2-6 IEC 60721-3-1~3 ETSI EN 300 753 NEBS GR-63-CORE ROHS IEC 61000-4-2~6 IEC 61000-4-29 EN 61000-4-2~6 EN 61000-4-29 ETSI EN 300 386 V1.6.1 ETSI ES 201 468 V1.4.1 VCCI V-3 EN 55022 EN 55024 EN 55032 ITU-T K.20 CISPR 22 CISPR 24 ITU-T K.32 ITU-T K.44 FCC part 15 ICES-003 EN 60950-1 EN 60825-1~2 IEC 60825-1~2 IEC 60950-1 UL 60950-1

Ordering information>>

ISCOM6810-GP8-AC/D (A)	1U cartridge GPON device, with centralized management of 8 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, dual AC power supplies
ISCOM6810-GP8-DC/D (A)	1U cartridge GPON device, with centralized management of 8 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, dual DC power supplies (-48/-60 V)
ISCOM6810-GP8-AC/DC (A)	1U cartridge GPON device, with centralized management of 8 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, single AC power supply + single DC power supply (-48/-60 V)
ISCOM6810-GP16-AC/D (A)	1U cartridge GPON device, with centralized management of 16 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, dual AC power supplies
ISCOM6810-GP16-DC/D (A)	1U cartridge GPON device, with centralized management of 16 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, dual DC power supplies (-48/-60 V)
ISCOM6810-GP16-AC/DC (A)	1U cartridge GPON device, with centralized management of 16 GPON interfaces, four 10GE interface (SFP optical interfaces), and 2GE interface (RJ45 electrical interfaces), supporting service switching and aggregation, single AC power supply + single DC power supply (-48/-60 V)