

ISCOM6800 Optical Line Terminal

ISCOM6800 is next generation xPON OLT device which supports IEEE802.3ah EPON and ITU-T G.984 GPON standards. Designed for large ISP, large enterprises, SME and home users access, it offers great flexibility to deliver triple-play services to homes. It also provides rich features to satisfy operators' needs and high reliability. Modular design makes it easy to mix inserted service cards and control cards of ISCOM6800. With dedicated RAISECOM ONU for mobile operators, ISCOM6800 can meet mobile operator requirement of backhaul service. Interconnection between HQ and branches with E-Line and E-LAN solution can be well supported. With the help of ISCOM6800-XP4/2A card, operators can easily eliminate the existing uplink bottleneck and make high-speed connection. Hot-swappable redundant power supply makes the maximum network uptime. Optimized design allows the lowest initial CAPEX and TCO is going down when the more capacity is required.

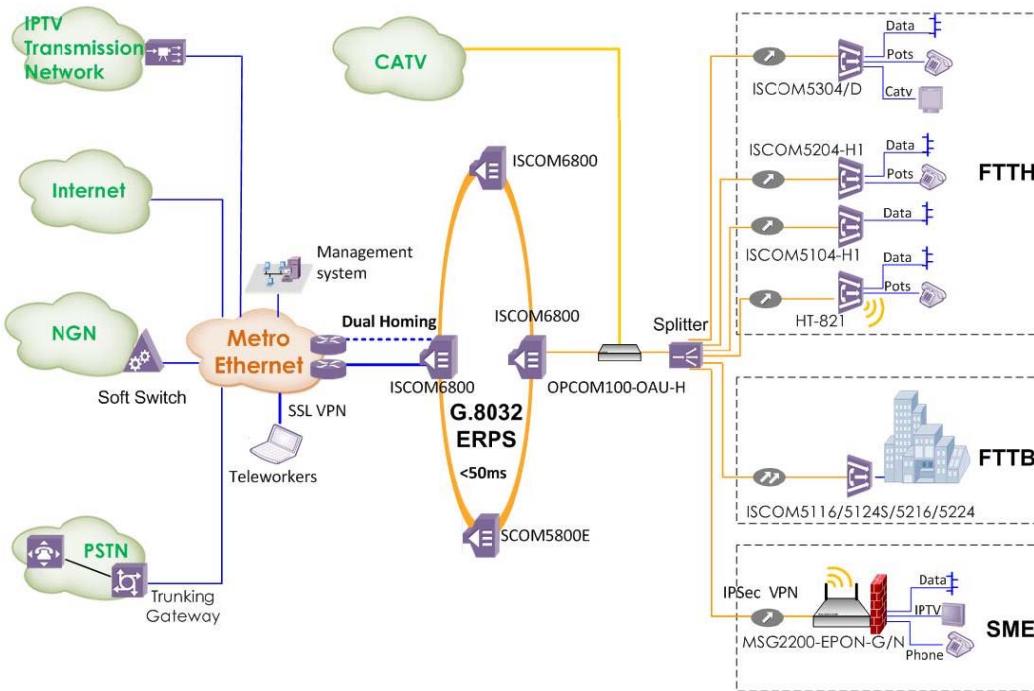
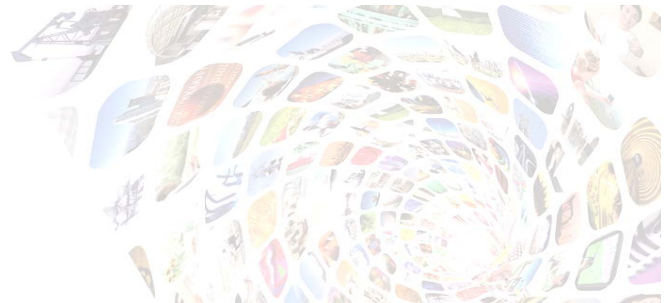


ISCOM6800

Highlights

Network Security	Advanced ACL, RADIUS, TACACS+, DAI, storm-control, IP Source Guard, Port Security MAC, Prevent DOS Attacking; Triple churning; P2P access control; SSHv2; Port isolate
Line protection	Support uplink-protect including Uplink-ring-protect/dual-homing protect, PON-protect including Type A/B/C/D
Ethernet ring	Support G.8032 (ERPS), up to 8 Ethernet rings, 124 devices in each ring
10GE connection	Maximum uplink 80GE connection
IPv4/IPv6	Flexible IPv4/v6
ONU service template	Deploy a batch of ONUs with ONU-SVR-template, 80 templates
IP routing	Support static route, default route, RIP v1/v2 and OSPFv3
ONUs capacity	Maximum 10752 ONUs/per OLT
MAC address table	128K MAC address, 1K static MAC address, 1K multicast MAC address; Support MAC address clear/search/trace/copy function
VLAN	Basic VLAN, Basic QINQ, flexible QINQ, VLAN Translation
ONU Authentication	Support five types of authentication mode: None, MAC, SN, Password, SN + Password
Switching fabric	2.56 Tbps
Reliability Index	System availability $\geq 99.999\%$, fault probability $\leq 1.5\%$, MTTR $\leq 2\text{H}$, MTBF $\geq 100\ 000\text{H}$

Typical Application

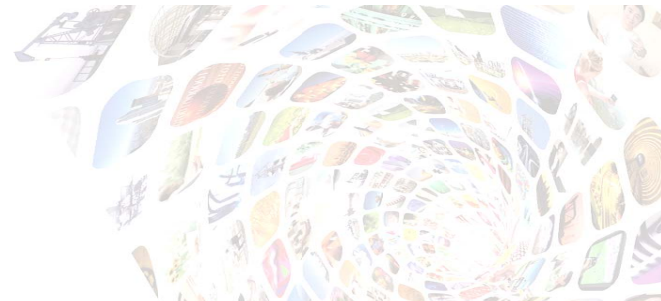


Products involved

- OLT:
 - ISCOM6800
- ONUs:
 - ISCOM5104-H1
 - ISCOM5204-H1
 - ISCOM HT821
 - ISCOM5116/5124S
 - ISCOM5216/5224
 - ISCOM5304
- SME:
 - MSG2200-EPON-G-AC
 - MSG2200-EPON-N-AC
- CWDM:
 - OPKOM100-OAU-H

Features

DBA	Support three forms of DBA: FIR, BIR, PIR; 64kbps granularity
FEC	Support two-way FEC
P2P	P2P Support P2P access control
VLAN	IEEE 802.1Q VLAN: 4094 Concurrent VLANs, VLAN mode: Access and Trunk port-based QinQ, total 10K flexible qinq, 2K VLAN translation;
Link Aggregation	Up to 6 groups and 8 ports per group; Group member max-port-number 26; Load balance based on MAC/IP/MAC+IP; Standard LACP (static only)
Storm Control	Broadcast, multicast, unicast, DLF storm control; Control mode: global, bps, burst; Default burst: 8KB
Mirror	Port-to-Multiport mirroring, Separate mirroring configurations for ingress & egress ports
Link Aggregation	Load balance based on MAC/MAC+IP; Support Manual configuration and static LACP; besides 1:1 Link Backup
STP	STP, MSTP
Port Isolate	Support Layer-2 isolate of Physical Port and designated VLAN port
Transparent Relay	BPDU; LACP; LLDP; STP
Advanced	
OAM	IEEE802.3ah OAM including discovery, link performance, remote loopback, fault detection & performance stats per OAM standards;



	OAM Active/Passive mode; EFM、CFM and SLA.
System Management	Console/Telnet/NMS/SNMP/SSHv2 management; RMON, 16 Layer 3 interfaces, Bridge MIB (RFC1493);System log;
Maintenance	Debug information output; PING (packet internet groper); Port statistic; Port dynamic statistic
Multicasting	Support more than 1024 multicast groups; IGMP SnoopingV1/V2/V3; 1k MLD; IGMP Proxy V1/V2/V3; Support static multicast and unknown multicast drop; Multicast VLAN Registration (MVR); Controlled multicasting of CTC
QoS	Support Global trust model、TRUST mode: CoS/TOS/DSCP priority; Global CoS/DSCP to queue mapping; Global queue scheduling based on port; Scheduling mode: SP/WRR/DRR/SP+WRR/SP+DRR; Flow statistic; Flow-based mirror/rate-limit/ redirection/VLAN swapping/rewriting of 802.1p CoS, DSCP, IP Precedence
Ethernet Ring	Support Ethernet ring protection switch (ERPA), Up to 8 Ethernet rings, 124 devices in each ring; switching time≤50ms
ACL	Support L2 - L4 packet filtering based on MAC(source MAC address、 destination MAC address) ACL, IP(source IP address、 destination IP address) ACL、MAP ACL(CoS、DSCP、VLAN、IP precedence and priority、 L4-port、...and other User-designed)、Filter Ingress or Egress ACL on port
Safety Features	Client classification and password protection; Binding of MAC address & port; storm-control, RADIUS,TACACS+,DAI,IP Source Guard, Port protection/isolate/backup, Prevent DoS Attacking
LLDP	Discovery remote base on link layer; Get remote basic information
Time Management	Time zone; Time modification; Support SNTP & NTP
DHCP	DHCP Client/Snooping/Server/Option 82/Relay
Port Backup	Port Backup by port or port based on VLAN
Software Upgrade	XMODEM, FTP upgrade in BOOTROM FTP/TFTP



Specifications

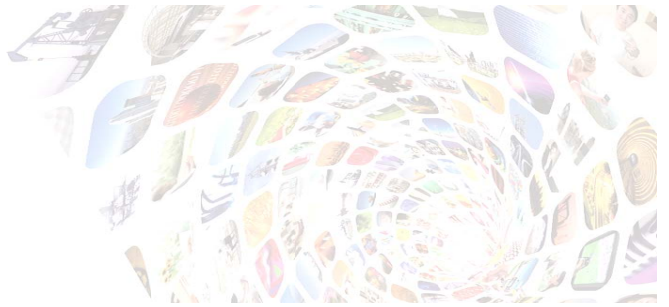
Performance	Backplane Up to Bi-directional 2.56 Tbps
Capacity	1K IGMP groups
Indicators	Power Supply (flashing); GE port: LINK/ACT; SFP port: LINK/ACT
Physical Interface	Management port: 1 console (RJ45); Monitoring port: 1 RS485 port Client interfaces: 2 x 10/100 Base-TX RJ45 port; Network interfaces: 2x 100/1000Base-X SFP; 4x 10/100/1000MBase-T RJ45; GEPON interfaces: 12x 1000BASE-PX20-D-SP SFP
Power Specs	AC: 220V, 50/60Hz DC: -48V/+24V Full load: ≤250W
User Conditions	Operating temp: 0~50 °C (32~122 °F); Storage temp: -25~70 °C (-13~185 °F); Humidity: 5~90% non-condensing

Compliances

Standards & protocols	IEEE 802.1Q VLAN IEEE 802.3ad Link Aggregation IEEE 802.1ad QinQ IEEE 802.1D Spanning Tree Protocol IEEE 802.1s MSTP RFC 2131 DHCP RFC 2132 DHCP Options IEEE 802.1x Security IEEE 802.1p CoS Prioritization IEEE 802.3x Flow Control IEEE 802.3ah OAM IEEE 802.1ag CFM ITU Y.1731 Services OAM ITU-T G.8021 ITU-T G.8031 RFC1465Static Routing, RFC1058RIPv1/RFC2453RIPv2 IGMP v1/v2/v3 RMON I and II standards SNMPv1/v2c/v3 MEF9/MEF14 G.992.1/G.992.3/G.992.5 G.991.2/G.993.1/G.993.2 RFC 3261/2543、RFC 2327、RFC 3550、 ITU-T H.248.v1/v2/v3 DHCPv4/v6 RFC2131 RFC3315
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Ordering Information

ISCOM6800-18	ISCOM6800 chassis with 18 slots.
ISCOM6800-18-AGB	Airflow slot and cable array.
FAN328	Fans with intelligent controllable speed and failure monitoring.
ISCOM6800-CICA	Environment monitoring card
ISCOM6800-SMCA	Switching and control card, which can be inserted into slot 9 or 10. Switching fabric 1.28Tbps.
ISCOM6800-SMCB	Switching and control card, which can be inserted into slot 9 or 10. Switching fabric 640Gbps.



ISCOM6800-XP4A	10 GE uplink line module, which provides 4 SFP+ slots for 10GE SFP+s, can be inserted into slot 19 or 20.
ISCOM6800-XP2A	10 GE uplink line module, which provides 2 SFP+ slots for 10GE SFP+s, can be inserted into slot 19 or 20.
ISCOM6800-GE16	GE uplink line module, which provides 16 SFP slots for GE SFPs, can be inserted into slot 1-8 or slot 11-16.
ISCOM6800-EP12	PON card, which provides 12 EPON ports, can be inserted into slot 1-8 or slot 11-16.
GSFP-PX20DM-R	PON SFP with digital diagnosis, which is used for ISCOM6800-EP4A or ISCOM6800-EP2A.
RPD2151-48S48	-48v power supply card.
UXFP-192/S1	Wavelength:1310 nm; RX sensitivity: -14.4 dBm@ 10.5Gbps, -13.4 dBm@11.3Gbps; TX power: -6~-1 dBm; Distance: 10 km; Bitrate: 9.95 ~ 11.3 Gbps

Appendix Specification of PON interface

Wavelength	RX sensitivity	TX Power	Typical Distance	Overload Point
1490nm	<-27dBm	+2 ~ +7dBm	20KM	>-6dBm