● Product Overview

STEC G6800 Series complies with ITU-T G.984/G.988 and meets requirements about GPON OLT in Network Access Technical Requirements. It fully supports CTC2.0, automatic discovery and cooperation with ONUs of different manufacturers.

STEC G6800 Series supports the symmetric uplink 1.25Gbps/downlink 2.5Gbps PON transmission rate, efficient bandwidth usage and Ethernet services, helping carriers to provide reliable services to their users.

Its coupling ratio ups to 1:128, and its support of different hybrid ONU networks minimize the carrier's investment.

STEC G6800 Series, based on the edge-cutting technologies, is strong in functions. A few of its functions such as QoS guarantee, SLA and DBA can be easily listed out.

G6800 Series
Carrier Level Chassis GPON OLT

● Product Characteristics

GPON : Abiding by ITU-T G.984/G.988, STEC G6800 Series meets relevant requirements of GPON OLT regulated in Network Access Technical Requirements and China Telecom GPON Technical Requirements CTC2.0;

Well Interaction : automatic discovery and compatible with ONT;

Hardware Redundancy : dual main control, dual power redundancy; Hot Swap: G6800 Series adopts the modularized designed. Each service card hot swap;

System Capacity : G6800 Series supports 128 PON ports and at most 16K ONT;

Environmental Protection : low power consumption and low operating cost.

Bus Optical Fiber Protection : the link can be automatically switched when trouble occurs in the optical fiber;

Power Characteristics: supports dual-AC, dual-DC and AC/DC power supply. The power supply supports modularized design, hot-swap and EMC-3 standard. It well adapts to the environment.

Support 1.25Gbps uplink/downlink bandwidth

Efficient bandwidth usage and Ethernet services

The splitting ratio ups to 1:64

STEC G6800 Series
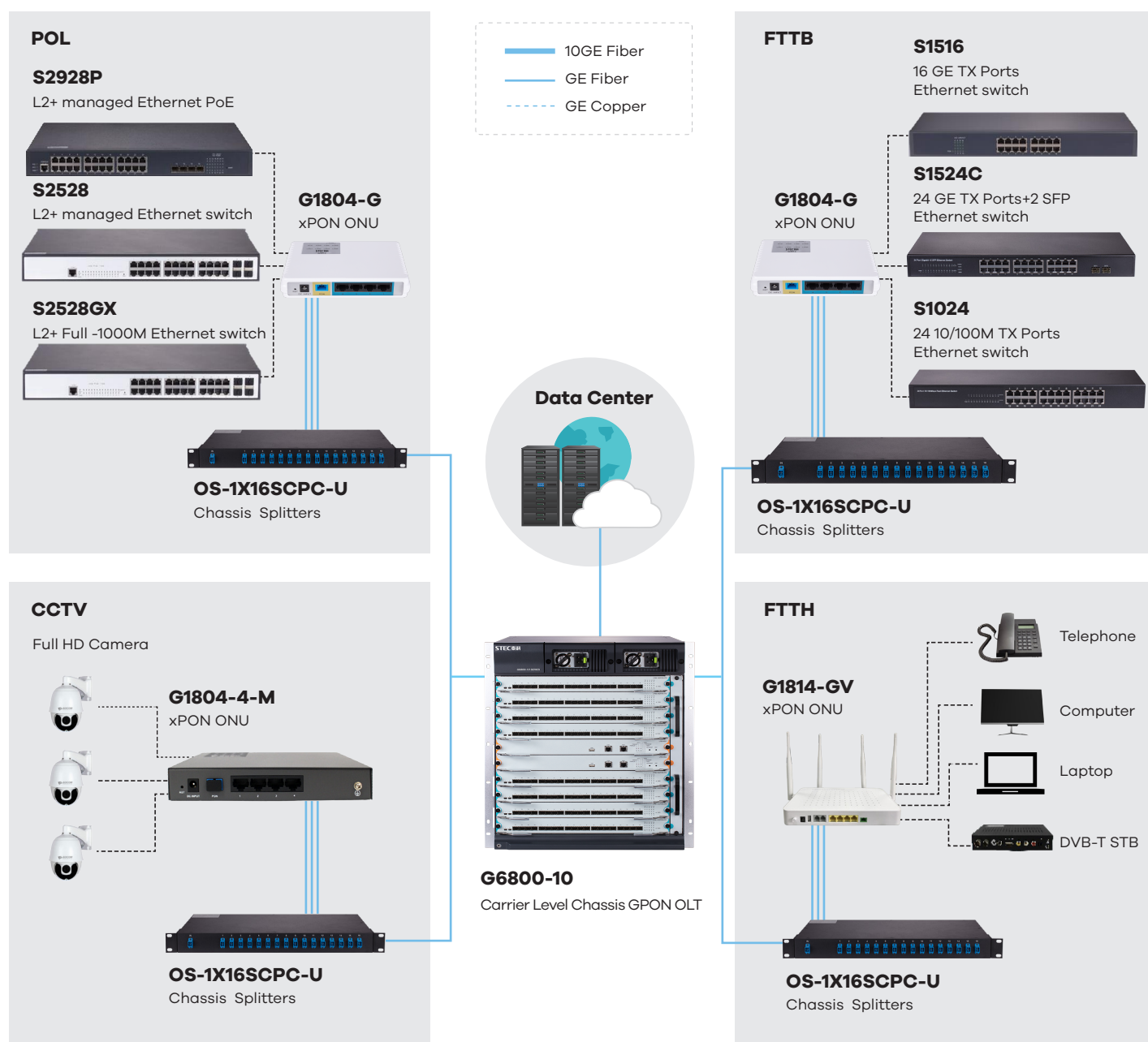
Model Lists

G6800-06

- 2 MCU slots
- 4 business slots
- 9U chassis
- 2 power slots

G6800-10

- 2 MCU slots
- 8 business slots
- 12U chassis
- 2 power slots

Application Diagram

POL

S2928P
L2+ managed Ethernet PoE

S2528
L2+ managed Ethernet switch

S2528GX
L2+ Full -1000M Ethernet switch

G1804-G
xPON ONU

OS-1X16SCPC-U
Chassis Splitters

Legend:
- ━━━ 10GE Fiber
- ─── GE Fiber
- ╌╌╌ GE Copper

FTTB

S1516
16 GE TX Ports
Ethernet switch

S1524C
24 GE TX Ports+2 SFP
Ethernet switch

S1024
24 10/100M TX Ports
Ethernet switch

G1804-G
xPON ONU

OS-1X16SCPC-U
Chassis Splitters

Data Center

CCTV

Full HD Camera

G1804-4-M
xPON ONU

OS-1X16SCPC-U
Chassis Splitters

G6800-10
Carrier Level Chassis GPON OLT

FTTH

- Telephone
- Computer
- Laptop
- DVB-T STB

G1814-GV
xPON ONU

OS-1X16SCPC-U
Chassis Splitters

System Performance

Item	G6800-06	G6800-10
Slot		
MCU	2	2
Business	4	8
Max. GPON ports	64	128
Power	2	2
Supported GPON SFP module	Class B+, Class C+, Class C++	Class B+, Class C+, Class C++
Management interface		
RJ45 console	1 for MCU	1 for MCU
Mini-USB console	1 for business module	1 for business module
Out-of-Band	1 for MCU	1 for MCU
System capacity		
DRAM (MB)	1024	1024
Flash (MB)	64	64
Backplane	4Tbps	4Tbps
MAC table	128K	128K
Buffer size (MB)	9	9
Jumbo frame (KB)	2	2
IPv4 routing table	8K	8K
IPv6 routing table	8K	8K
Active VLAN	4,094	4,094
SVI number	400	400
Forwarding mode	Store-and-forward	Store-and-forward

Technical Specifications

Standards
- ITU-T G.984/G.988
- IEEE 802.11D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- IEEE 802.3ad physical link static/dynamic aggregation (LACP), Ethernet - II

VLAN
- Port/IP/Protocol/MAC-based VLAN
- 4K VLAN
- QinQ and flexible QinQ

Multicast
- L2 multicast
- IGMP snooping
- MLD snooping
- Fast-leave

Layer 3 Function
- Static route
- RIPv1/v2
- OSPF
- BGP

QoS
- Backpressure flow control (half duplex)
- IEEE 802.3x flow control (full duplex)
- IEEE 802.1p, CoS
- WRR, SP and FIFO queue schedule
- Limiting the uplink/downlink rate based on each ONU
- DBA and SLA

Reliability
- Unidirectional Link Detection (UDLD)
- Hot swap of the PON optical module
- Optical path protection of GPON (type B/C)
- Abnormal luminescence ONU detection such as long luminescence
- IEEE 802.3ad LACP

DHCP Function
- Server/Relay/Client
- DHCP snooping
- DHCP option 66,67,82
- DAI
- IP source guard

Network Security
- L2~4 ACL
- Flow-based ACL
- MAC limitation
- MAC sticky
- Port isolation
- Packet storm control
- Transmission data encryption on the PON interface
- Anti attack for DDOS, TCP-SYN-flood, UDP-flood, ARP-flood, etc.

Management
- Various management modes such as CLI, Telnet, SSH, HTTP, SSL and SNMP
- ISSU
- FTP/TFTP
- Debug output
- NTP
- SPAN

Network Availability
- STP/RSTP/MSTP
- BPDU guard
- EAPS

Physical Characteristics

Item		G6800-06	G6800-10
Power supply			
AC (V)		90 ~ 264	90 ~ 264
DC (V)		36~72	36~72
Power slots		2	2
Hot-swap		Support	Support
Max. consumption (W)		533	761
Total output BTU (note: 1000 BTU/hr = 293W)		1819.11	2597.27
Cooling system			
Fan number		6	9
Air-flow		Left-right	Left-right
Noise@25°C(dBA)		< 65	< 72
Appearance			
Chassis	Dimensions(WxDxH mm)	482.6 x 548 x 399.7	482.6 x 548 x 533.1
	Weight (Kg)(empty)	47.4	64
Package	Dimensions(WxDxH mm)	676 x 661 x 645	676 x 661 x 780
	Weight (Kg)	62	81
Environmental specifications			
Operating	Temperature	0~45°C	0~45°C
	Humidity (non-condensing)	10%~85%	10%~85%
Storage	Temperature	-40°C-80°C	-40°C-80°C
	Humidity (non-condensing)	5%-95%	5%-95%
Accessories			
Parts		Power cord, rackmount kits, console cable	Power cord, rackmount kits, console cable
Reliability			
MTBF (Hr)		90,000	90,000
Certification		CE, FCC, ROHS	CE, FCC, ROHS

Ordering Information

Model	Description
G6800-06	G6800-06 OLT chassis (standard fan board, 2 power supplies at most, 6 expansion slots, 2 slots are for main control board, 4 service slots)
G6800-10	G6800-10 OLT chassis (standard fan board, 2 power supplies at most, 10 expansion slots, 2 slots for the main control board, 8 service slots)
LP66-MSU	G6800 Series OLT Main Control Board
LP66-16GPON-4TE	OLT GPON interface board with 16 ports (16 GPON SFP ports and 4 10GE SFP+ ports, no optical module)
LP66-12TE-SFP+	OLT GPON 10GE interface board with 12 ports (12 10GE SFP+ ports, no optical module)
PWR-1200-AC	G6800 OLT AC power supply (AC900~240V input voltage , 1200W max power)
PWR-1200-DC	G6800 OLT DC power supply (DC 36~72V input voltage, 1200W max power)
OLT-GSFP-B+	OLT SFP module, Class B+ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface
OLT-GSFP-C+	OLT SFP module, Class C+ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface
OLT-GSFP-C++	OLT SFP module, Class C++ standard, downlink 2.5G/uplink 1.25G, TX wavelength 1490nm, RX wavelength 1310nm, SC interface