GPON Multi-service Broadband Access ONT

G1800 Series

Product Overview

STEC G1800 Series is a new generation smart ONT for integrated multi-service broadband access networks.
G1800 Series, involving multiple models, supports common enterprise broadband access service, POE service and outdoor wide-temperature.

G1800 Series is complied with the international standard ITU-T G.984/988 and PRC Communication Industry Standard GPON ONT in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.
G1800 Series has 7 models:
G1801-G-B, G1802-FC-T, G1804-F, G1804-FC-T, G1804-G, G1804-G-P and G1804-G- W .

Product Characteristics

Excellent Access Capacity
G1800 Series supports the PON transmission rate of downlink 2.5Gbp/ uplink 1.25Gbps. Connected with STEC OLT, it can realize 1:128 splitting ratio. The covering radius of the network can reach to 20km.

Secure Service Carrying Ability
For ensuring the secure service carrying ability of ONT, STEC has developed techniques including VLAN, STP, port isolation, ACL, QoS and Broadcast Storm Control.

High Service Control Capability
G1800 Series supports DBA and Rate-Limit. It supports advanced dynamic bandwidth distribution and accurate bandwidth limit, which enables users to share 2.5Gbps bandwidth resource appropriately. It also supports QOS function, which guarantees a reliable service quality and service priority.

Rich OMCI Function
G1800 Series supports the standard OMCI defined by ITU-T, including configuration, alarm, performance monitoring, fault isolation and security management, and it also supports private OMIC defined by STEC

Complete Interaction Capacity
G1800 Series is complied with ITU-T G.984/988 and relevant requirements for PRC Community Industry Standard GPON ONT in Access Technology Requirements and China Telecom GPON Technical Requirement CTC2.0.

Advanced Energy-saving Technique
G1800 Series supports the "GreenTouch" architecture and "Smart@CHIP".

Varied Application Scenarios
POE model G1804-G-P can support 802.af/at, working temperature of G1804-G-W can reach up to 70℃

Support 1.25Gbps uplink/downlink bandwidth

Efficient bandwidth usage and Ethernet services

The splitting ratio ups to 1:64

Model Lists

G1804-F

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 1 GE + 3 FE TX

G1804-FC-T

GPON Multi-service Broadband Access ONT

- 1 SC/APC
- 1 GE + 3 FE TX
- 1 RF port

G1804-G

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

G1804-G-P

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE POE

G1804-G-W

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 4 GE TX

G1801-G-B

GPON Multi-service Broadband Access ONT

- 1 SC/UPC
- 1 GE TX
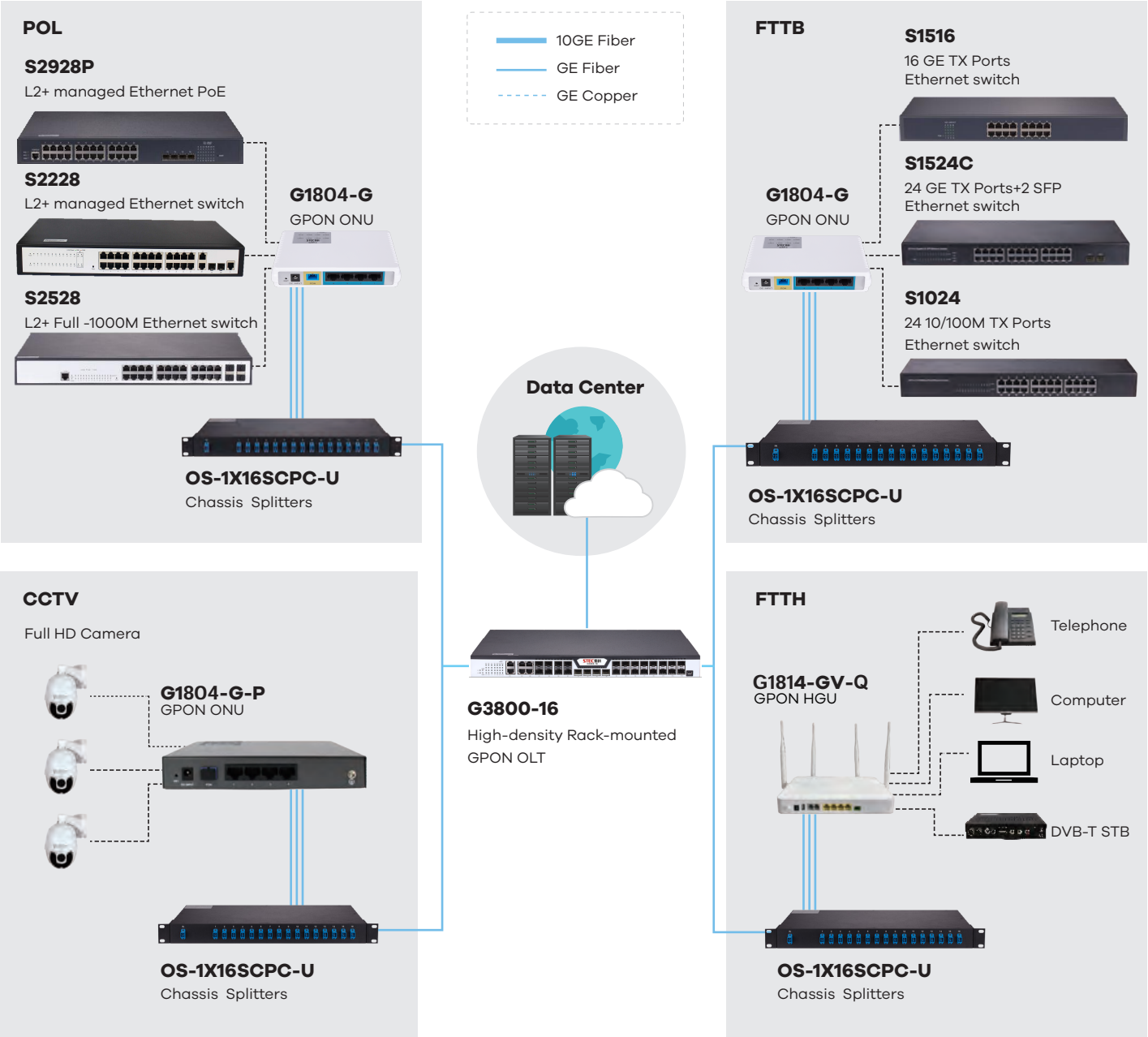
G1802-FC-T

GPON Multi-service Broadband Access ONT

- 1 SC/APC
- 1 GE + 1 FE TX
- RF port

Application Diagram

POL

S2928P
L2+ managed Ethernet PoE

S2228
L2+ managed Ethernet switch

S2528
L2+ Full -1000M Ethernet switch

G1804-G
GPON ONU

OS-1X16SCPC-U
Chassis Splitters

— 10GE Fiber
— GE Fiber
- - - GE Copper

FTTB

S1516
16 GE TX Ports
Ethernet switch

S1524C
24 GE TX Ports+2 SFP
Ethernet switch

G1804-G
GPON ONU

S1024
24 10/100M TX Ports
Ethernet switch

OS-1X16SCPC-U
Chassis Splitters

CCTV

Full HD Camera

G1804-G-P
GPON ONU

OS-1X16SCPC-U
Chassis Splitters

Data Center

G3800-16
High-density Rack-mounted
GPON OLT

FTTH

G1814-GV-Q
GPON HGU

Telephone

Computer

Laptop

DVB-T STB

OS-1X16SCPC-U
Chassis Splitters

System Performance

Item G1804-G-W		G1801-G-BBBB	G1802-FC-T	G1804-F	G1804-FC-T	G1804-G	G1804-G-P	
Service interface								
PON ports		1 SC/UPC	1 SC/APC	1 SC/UPC	1 SC/APC	1 SC/UPC	1 SC/UPC	1 SC/UPC
UNI ports		1 GE	1GE + 1FE 1 RF	1 GE + 3 FE	1 GE + 3 FE 1 RF	4 GE	4 GE POE	4 GE
Optical power	TX power				0.5~5dBm			
	RX sensitive				<-28dBm			
Power supply								
AC adaptor	Input:	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC
	Output:	12V/0.5A	12V/1A	12V/0.5A	12V/1A	12V/0.5A	DC53.5V/1.2A	
Max. consumption (W)		6	10	6	10	6	65(with POE)	6
Appearance								
Chassis	Dimensions (WxDxH mm)	80 x 75 x 24	140 x 105 x 30	130 x 100 x 28	200 x 150 x 38	130 x 100 x 28	170 x 98 x 28	238 x 140 x 32
	Weight (Kg)(empty)	0.1	0.2	0.2	0.3	0.2	0.6	0.4
Package	Dimensions (WxDxH mm)	178 x 126 x 35	277 x 176 x 38	256 x 114 x 46	290 x 202 x 54	256 x 114 x 46	250 x 230 x 55	364 x 198 x 75
	Weight (Kg)	0.2	0.4	0.3	0.5	0.3	0.8	0.6
Environmental Specifications								
Operating	Temperature	0~45℃	0~45℃	0~45℃	0~45℃	0~45℃	0~45℃	-20~70℃
	Humidity	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)
Storage	Temperature	-40℃ ~85℃	-40℃ ~85℃	-40℃ ~85℃	-40℃ ~85℃	-40℃ ~85℃	-40℃ ~85℃	-40℃ ~85℃
	Humidity	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)	5%~95% (non-condensing)
Accessories								
Parts				Power adaptor				

Ordering Information

Model	Description
G1801-G-B	FTTH/O ONT, 1 GPON port (SC/UPC), 1 GE TX port, supporting PPPoE, plastic hull, external adaptor
G1802-FC-T	FTTH/O ONT, 1 GPON port (SC/APC), 1 GE + 1 FE TX ports, 1 RF interface (British System), plastic hull, external adaptor
G1804-F	FTTH/O ONT, 1 GPON port (SC/UPC), 1 GE + 3 FE TX port, plastic hull, external adaptor
G1804-FC-T	FTTH/O ONT, 1 GPON port (SC/APC), 1 GE + 3 FE TX ports, 1 RF interface (British System), plastic hull, external adaptor
G1804-G	FTTH/O ONT, 1 GPON port (SC/UPC), 4 GE TX ports, plastic hull, external adaptor
G1804-G-P	FTTB ONU, 1 GPON port (SC/UPC), 4 GE POE ports, iron hull, 4 POE power ports, external adaptor (Output DC53.5V/1.2A)
G1804-4G-W	Outdoor wide temperature ONT, 1 GPON port (SC/UPC), 4 GE TX ports, iron hull, AC220V input, -20~70°C working temperature

Technical Specifications

Standards

- ITU-T G.984/G.988
- PRC Community Industry Standard GPON ONU in Access Technology Requirements
- IEEE 802.1D, Spanning Tree
- IEEE 802.1Q, VLAN
- IEEE 802.1w, RSTP
- ITU-T Y.1291

VLAN

- 4K VLAN
- Port based VLAN
- IEEE 802.1Q VLAN
- Tag/Transparent/Aggregation /Trunk/Translation mode VLAN
- CTC2.0 defined VLAN

GPON Service

- AES128 algorithm encryption
- MAC/Loid/Hybrid authentication

QoS

- Backpressure flow control (half-duplex)
- IEEE 802.3x flow control (full duplex)
- Against Head of Line mechanism
- IEEE 802.1p, CoS
- Four priority queues on each port
- WR, SP and FIFO queue schedule algorithms
- Port rate limit
- SLA and DBA

Management

- Management modes including CLI, HTTP, SNMP and TELNET
- Software upgrade through TFTP and WEB, OMCI, etc.
- Local or server syslog

Network Security

- MAC address number limit
- MAC filter
- Port protect

Multicast

- IGMP-Snooping
- CTC defined dynamic multicast function
- MLD-Snooping
- Multicast group limitation
- Multicast fast-leave

Reliability

- Loop detection
- Dying-Gasp
- TX/RX optical power alarm

STEC

FC CE ANATEL