



EPON Multi-service Broadband Access ONU

# E1800 Series

## Product Overview

STEC E1800 Series is a new generation smart ONU for integrated multi-service broadband access networks.

E1800 Series, involving multiple models, supports common enterprise broadband access service, POE service and outdoor wide-temperature.

E1800 Series is complied with the international standard IEEE 802.3ah and YD/T 1475-2006 and China Telecom EPON Technical Requirement CTC.

E1800 Series has 7 models : E1801-G-B, E1802-FC-T, E1804-F, E1804-FC-T, E1804-G, E1804-G-P and E1804-G-W.



### High Service Control Capability

E1800 Series supports DBA and Rate-Limit. It supports advanced dynamic bandwidth distribution and accurate bandwidth limit, which enables users to appropriately share 1.25Gbps bandwidth resource. It also supports QOS function, which guarantees a reliable service quality and service priority.

### Rich OAM Function

E1800 Series supports standard OAM and expanded OAM defined by Chinese Telecom CTC2.1/3.0, including configuration, alarm, performance monitoring, fault isolation and security management. It also supports private OAM defined by STEC.

## Product Characteristics

### High Access Capacity

E1800 Series supports the symmetric uplink/downlink 1.25Gbps PON transmission rate. Connected with STEC OLT, it can realize 1:64 splitting ratio. The network covering radius can reach to 20km.

### Secure Service Carrying Ability

For ensuring the secure service carrying ability of ONU, STEC has developed techniques including VLAN, STP, ACL, QoS, security filtering and Broadcast Storm Control.

### Complete Interaction Capacity

E1800 Series is complied with IEEE802.3ah and relevant requirements for EPON ONU regulated in Technical Requirements of YD/T 1475-2006—Ethernet-Based EPON and China Telecom EPON Technical Requirement 2.1/3.0.

### Advanced Energy-saving Technique

E1800 Series supports the "GreenTouch" architecture and "Smart@CHIP".

### Varied Application Scenarios

POE model E1804-G-P can support 802.af/at, working temperature of E1804-G-W can reach up to 70 C



Support 1.25Gbps uplink/downlink bandwidth



Efficient bandwidth usage and Ethernet services



The splitting ratio ups to 1:64

# Model Lists

## E1804-F

EPON Multi-service Broadband Access ONU



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

## E1804-FC-T

EPON Multi-service Broadband Access ONU



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

## E1804-G

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE TX

## E1804-G-P

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE POE

## E1804-G-W

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE TX

## E1801-G-B

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 1 GE TX

## E1802-FC-T

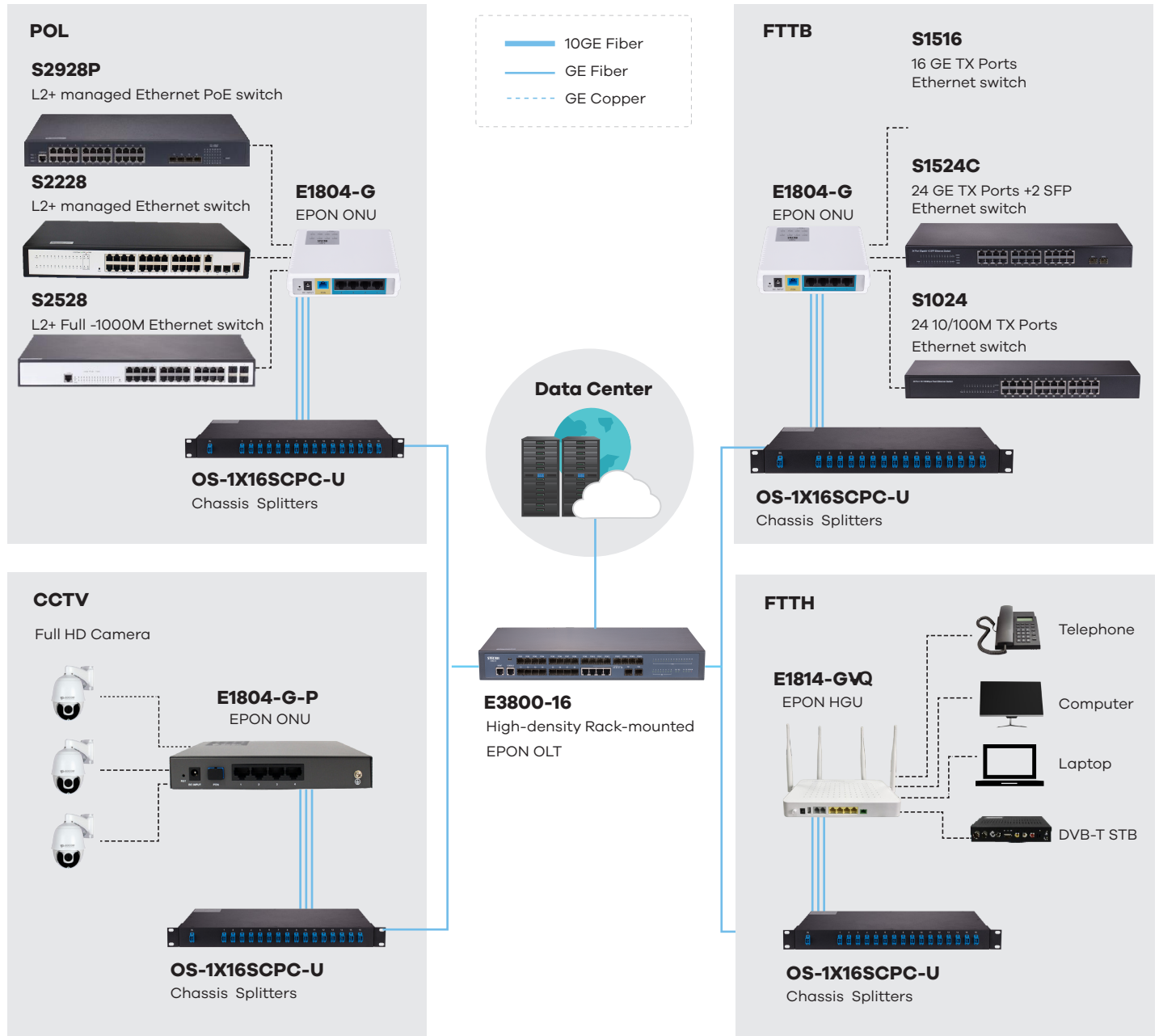
EPON Multi-service Broadband Access ONU



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

STEC E1800 Series

# Application Diagram



## System Performance

Item	E1801-G-B	E1802-FC-T	E1804-F	E1804-FC-T	E1804-G	E1804-G-P	E1804-G-W	
<b>Service interface</b>								
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	1 GE + 1 FE 1 RF	1 GE + 3 FE	1 GE + 3 FE 1 RF	4 GE	4 GE POE	4 GE	
Optical power	TX power			0~4dBm				
	RX sensitive			<-27dBm				
<b>Power supply</b>								
AC Input:	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	100-240V AC	
adaptor 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	
<b>Appearance</b>								
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
<b>Environmental Specifications</b>								
Operating	Temperature	0~45°C	0~45°C	0~45°C	0~45°C	0~45°C	0~45°C	-20~70°C
	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 C ~85 C	-40 C ~85 C	-40 C ~85 C	-40 C ~85 C	-40 C ~85 C	-40 C ~85 C	-40 C ~85 C
	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)
<b>Accessories</b>								
Parts	Power adaptor							

# Ordering Information

Model	Description
E1801-G-B	FTTH/O ONU, 1 EPON port (SC/UPC), 1 GE TX port, supporting PPPoE, plastic hull, external adaptor
E1802-FC-T	FTTH/O ONU, 1 EPON port (SC/APC), 1 GE + 1 FE TX ports, 1 RF interface ( British System), plastic hull, external adaptor
E1804-F	FTTH/O ONU, 1 EPON port (SC/UPC), 1 GE + 3 FE TX ports, plastic hull, external adaptor
E1804-FC-T	FTTH/O ONU, 1 EPON port (SC/APC), 1GE+3FE TX ports, 1 RF interface (British System), plastic hull, external adaptor
E1804-G	FTTH/O ONU, 1 EPON port (SC/UPC), 4 GE TX ports, plastic hull, external adaptor
E1804-G-P	FTTB ONU, 1 EPON port (SC/UPC), 4 GE POE ports, iron hull, 4 POE power ports, external adaptor (Output DC53.5V/1.2A)
E1804-G-W	Outdoor wide temperature ONU, 1 EPON port (SC/UPC), 4 GE TX, iron hull, AC220V input, -20~70 C working temperature

## Technical Specifications

### Standards

- IEEE802.3ah
- PRC Community Industry Standard (YD/T 1475-2006)
- 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
- CTC2.1/3.0 defined VLAN

### EPON Service

- Triple-churning 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, OAM, etc.
- Local or server syslog

### Network Security

- MAC address number limit
- MAC ACL
- L2~4 IP ACL
- Port protection
- Port storm control

### 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

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