

EPON Multi-service Broadband Access ONU

P1702 Series

Product Overview

BDCOM P1702 Series is a new generation smart ONU for integrated multi-service broadband access networks.

P1702 Series, involving multiple models, supports common enterprise broadband access service, POE service and outdoor wide-temperature.

P1702 Series is complied with the international standard IEEE 802.3ah and YD/T 1475-2006 and China Telecom EPON Technical Requirement CTC.

P1702 Series has 5 models: P1702-4F, P1702-4FC-S, P1702-4G, P1702-4G-POE and P1702-4G-IE.

Product Characteristics

High Access Capacity

P1702 Series supports the symmetric uplink/downlink 1.25Gbps PON transmission rate. Connected with BDCOM 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, BDCOM has developed techniques including VLAN, STP, ACL, QoS, security filtering and Broadcast Storm Control.



High Service Control Capability

P1702 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

P1702 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 BDCOM.

Complete Interaction Capacity

P1702 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

P1702 Series supports the "GreenTouch" architecture and "Smart@CHIP".

Varied Application Scenarios

POE model P1702-4G-POE can support 802.af/at, working temperature of P1702-4G-IE 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

P1702-4F

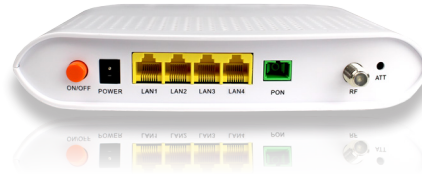
EPON Multi-service Broadband Access ONU



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

P1702-4FC-S

EPON Multi-service Broadband Access ONU



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

P1702-4G

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE TX

P1702-4G-POE

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE POE

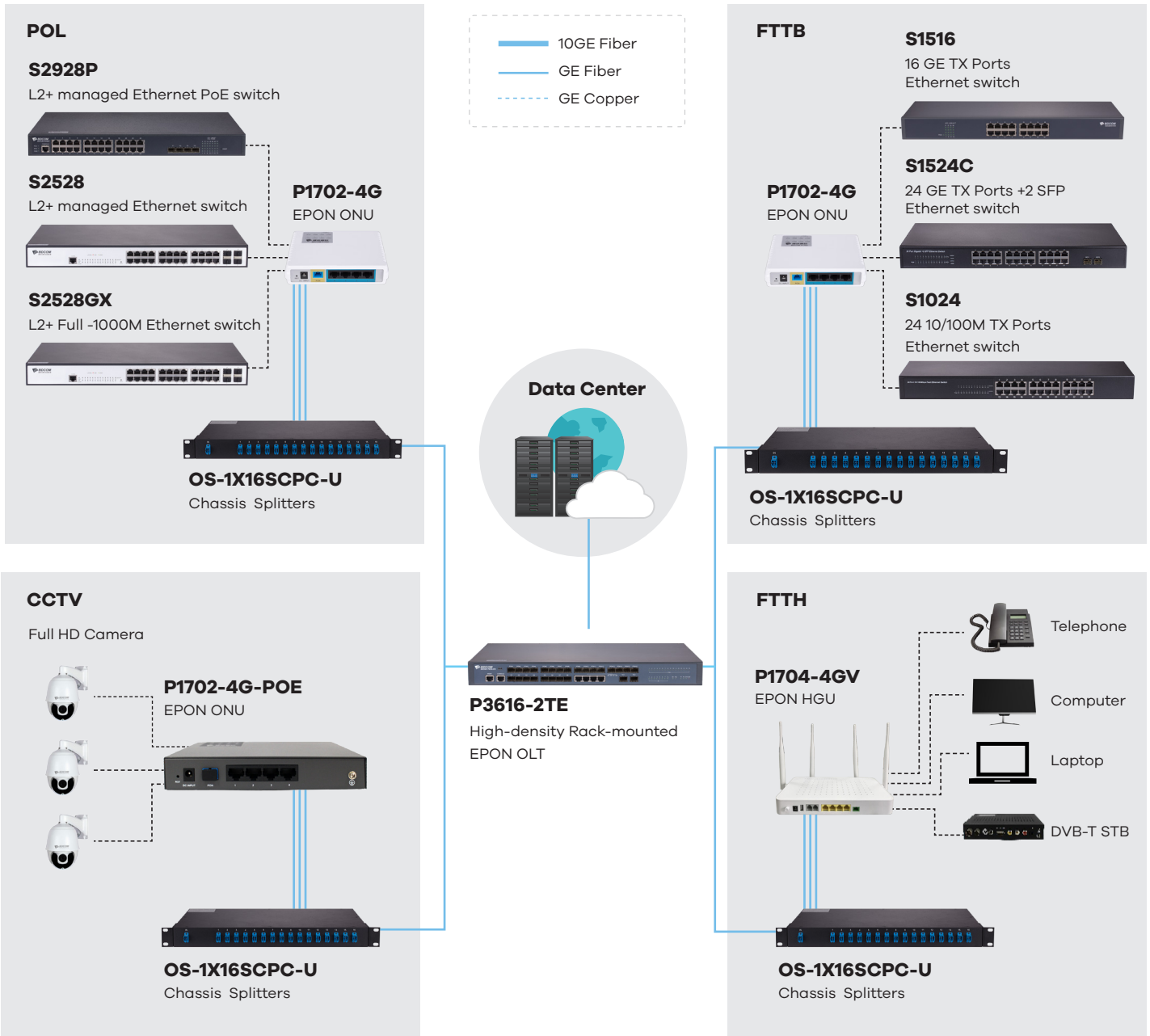
P1702-4G-IE

EPON Multi-service Broadband Access ONU



- 1 SC/UPC
- 4 GE TX

Application Diagram



System Performance

Item		P1702-4F	P1702-4FC-S	P1702-4G	P1702-4G-POE	P1702-4G-IE
Service interface						
PON ports		1 SC/UPC	1 SC/APC	1 SC/UPC	1 SC/UPC	1 SC/UPC
UNI ports		1 GE + 3 FE TX	1 GE + 3 FE TX 1 RF port	4 GE TX	4 GE POE	4 GE TX
Optical power	TX power	0~4dBm	0~4dBm	0~4dBm	0~4dBm	0.5~5dBm
	RX sensitive	<-27dBm	<-27dBm	<-27dBm	<-27dBm	<-28dBm
System capacity						
DRAM (MB)		128	128	128	128	128
Flash (MB)		128	128	128	128	128
MAC table		2K	2K	2K	2K	2K
VLAN ID		4K	4K	4K	4K	4K
Power supply						
AC adaptor		Input: 100-240V AC Output: 12V/0.5A	Input: 100-240V AC Output: 12V/1A	Input: 100-240V AC Output: 12V/0.5A	Input: 100-240V AC Output: DC53.5V/1.2A	100-240V AC
Max. consumption (W)		6	10	6	65(with POE)	6
Appearance						
Chassis	Dimensions (WxDxH mm)	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)	0.2	0.3	0.2	0.6	0.4
Package	Dimensions (WxDxH mm)	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)	0.3	0.5	0.3	0.8	0.6
Environmental Specifications						
Temperature		0~45°C	0~45°C	0~45°C	0~45°C	-20~70°C
Operating	Humidity	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)	10%~85% (non-condensing)
	Temperature	-40°C ~85°C	-40°C ~85°C	-40°C ~85°C	-40°C ~85°C	-40°C ~85°C
Storage	Humidity	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
P1702-4F	FTTH/O ONU, 1 EPON port (SC/UPC), 1 GE + 3 FE TX ports, plastic hull, AC220V external adaptor
P1702-4FC-S	FTTH/O ONU, 1 EPON port (SC/APC), 1GE+3FE TX ports, 1 RF interface (British Standard), plastic hull, AC220V external adaptor
P1702-4G	FTTH/O ONU, 1 EPON port (SC/UPC), 4 GE TX ports, plastic hull, AC220V external adaptor
P1702-4G-POE	FTTB ONU, 1 EPON port (SC/UPC), 4 GE POE ports, iron hull, 4 POE power ports, external adaptor (Output DC53.5V/1.2A)
P1702-4G-IE	Outdoor wide temperature ONU, 1 EPON port (SC/UPC), 4 GE TX, iron hull, AC220V , -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