

# FD1604E-L1/FD1608E-L1

## 4+(4) PON PORTS GPON OLT



**Expandable OLT**



**USB Interface**



**CMS Management**



**BBU Power Supply**



**Multiple  
Business Slots**



**Redundant  
Power Supply**

### Brief Views

GPON OLT FD1604E-L1/FD1608E-L1 completely meets relative standard of ITU-T G.984.x/G.988, which is 1U rack-mounted device with 1 USB interface, 4 uplink GE ports, 6 10GE(SFP+) uplink ports.

FD1604E-L1 has 4 fixed GPON ports and 1 4GPON port service card (optional, FD1608E-L1). Each GPON port supports the splitting ratio of 1:128. The GPON system supports up to 512/1024 terminal connections.

FD1604E-L1 supports a pluggable service card, which is convenient and flexible to use, easy to deploy, and convenient for the subsequent expansion of network services. Moreover, the product meets the requirements of promoting network performance, improving reliability and reducing power consumption in the perspective of access network and enterprise network and is applicable to three-in-one broadcast television network, FTTP (Fiber to the premise), video monitoring network, enterprise LAN (Local Area Network), internet of things and other network applications with a very high price/performance ratio.

**FD1608E-L1**



**Power Supply**



**FD1604E-L1**



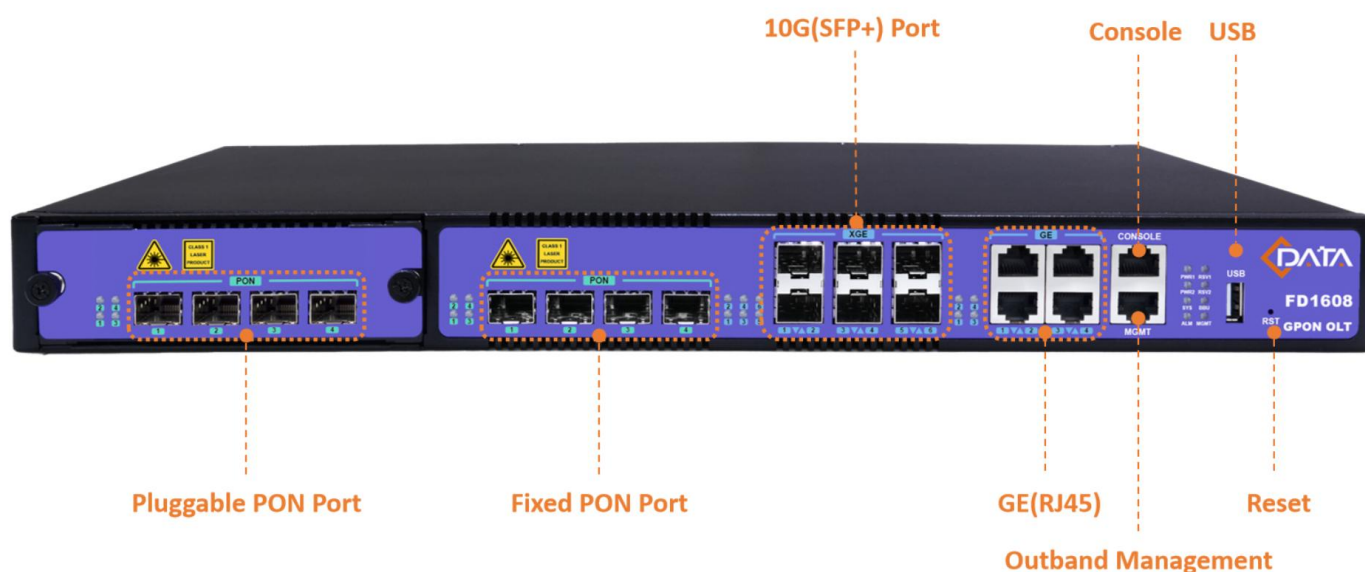
**Power Supply**



## Functional Feature

- Meet ITU-T G.984/G.988 standard and standards of Chinese Communication Industry
- Support OMCI Protocol
- 1U height 8PON OLT product in compact design of Pizza-Box
- Fan speed adjust automatically
- 1+1 Pluggable power module
- Complete PON protection switching function
- Layer 2 Switching Function
- OLT equips with very powerful layer 2 Full Wire Speed Switching and completely supports layer 2 protocol. OLT supports varieties of layer 2 functions like TRUNK, VLAN, LACP, rate limit, port isolate, queue technology, flow control technology, ACL and so on, which provides technical guarantee for the development of multi-service integrated.
- QoS Guarantee
- GPON Products maintains fully-improved DBA with excellent QoS service capabilities. DBA meets different QoS requirements from different service flow in latency, jitter, packet loss rate.
- Easy-to-Use Management System
- Support management method of CLI, WEB, SNMP, TELNET, SSH and meet OMCI standard, through OMCI channel protocol service management can be realized, including ONT function parameter set, T-CONT service lines and amount, QoS parameters, configuration information request, performance statistics, auto-reporting of running events in system, configuration for ONT from OLT, fault diagnosis and management of performance and safety.

## Product Interface and LED



Note: Take FD1608E-L1 as an example

## Product Specification

### Mechanics

|            |                                          |
|------------|------------------------------------------|
| Dimensions | 440mm(L)*293mm(W)*44mm(H)                |
| Weight     | 3.0Kg (FD1604E-L1)<br>3.6Kg (FD1608E-L1) |

### Hardware

|                           |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                          |
|---------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------|
| Uplink Port               | 1-Gigabit                | 4* 10/100/1000M auto-negotiation Ethernet ports                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                          |
|                           | 10-Gigabit               | 6* (SFP+) interfaces                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                          |
| PON Port                  | Quantity                 | 4 + (4) (FD1604E-L1/FD1608E-L1)                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                          |
|                           | Physical Interface       | SFP slot                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                          |
|                           | Interface Type           | GPON: ITU-TG.984.2 Class B+/Class C+/Class C++                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                          |
|                           | Max Splitting Ratio      | GPON: 1:128                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                          |
| Management Port           |                          | 1* 100/1000BASE-Tx out-band Ethernet port<br>1* CONSOLE local management port                                                                                                                                                                                                                                                                                                                                                                        |                      |                          |
| USB Port                  |                          | 1* USB interface (It's used to backup configuration, upgrade program and record log information)                                                                                                                                                                                                                                                                                                                                                     |                      |                          |
| PON Port Attribute        | Transmission Distance    | 20KM                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                          |
|                           | Port Rate                | GPON: Downstream: 2.5Gbps Upstream: 1.25Gbps                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                          |
|                           | Wavelength               | Forwarding: 1490nm Receiving: 1310nm                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                          |
|                           | Interface Type           | SC/UPC                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                          |
|                           | Fiber type               | 9/125μm SMF (Single Mode Fiber)                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                          |
|                           | Light Transmission Power | Class B+: +1.5 ~ +5dBm                                                                                                                                                                                                                                                                                                                                                                                                                               | Class C+: +3 ~ +7dBm | Class C++: +4.5 ~ +10dBm |
|                           | Receiving Sensitivity    | Class B+: -28dBm                                                                                                                                                                                                                                                                                                                                                                                                                                     | Class C+: -30dBm     | Class C++: -31dBm        |
|                           | Saturation Power         | Class B+: -8dBm                                                                                                                                                                                                                                                                                                                                                                                                                                      | Class C+: -12dBm     | Class C++: -10dBm        |
| Network Management Method |                          | Support CLI, SNMP, TELNET, SSH, WEB                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                          |
| Business Capabilities     |                          | Support device log, device upgrade, device management, condition monitoring, configuration management, and user management.<br>Layer 2 switching configuration management: Like port management, VLAN, RSTP, IGMP, ACL, QoS and so on.<br>PON function configuration management: Like OLT authentication, DBA template, service template, line template and so on.<br>Layer 3 function: support static routing, dhcp-relay and vlanif configuration. |                      |                          |
| Backplane Bandwidth       |                          | 143G (FD1604E-L1)<br>158G (FD1608E-L1)                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                          |

### Power supply

|    |                        |
|----|------------------------|
| AC | 100V ~ 240V, 47 ~ 63Hz |
|----|------------------------|

|                           |                                                                                                                                                                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DC                        | -40V ~ -72V                                                                                                                                                                                                                                       |
| BBU (Backup Battery Unit) | DC: 11V~14V.<br>Function: When the regular power supply is cut off, it can be switched to the backup power supply, and when the regular power supply resumes, it will switch back to the regular power supply and charge the backup power supply. |
| Maximum Power             | 42.35W (FD1604E-L1)<br>56.75W (FD1608E-L1)                                                                                                                                                                                                        |

| Environment         |                          |
|---------------------|--------------------------|
| Working Temperature | -15 ~ 50℃                |
| Storage Temperature | -40 ~ 85℃                |
| Ambient Humidity    | 5 ~ 90% (Non-condensing) |

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