

## GL-E8031U-DN 4GE ONU

### Product description:

GL-E8031U-DN ONU products fully comply with IEEE 802.3-2005 and China Telecom EPON equipment technical requirements V2.1, with carrier-grade operational, manageable, and easy to maintain features, providing customers with high-speed data services. It has a PON uplink interface connected to the central office equipment through optical fiber.



### Features:

- Comply with IEEE802.3-2005 standard and CTC V2.1 technical requirements.
- >Support Ethernet service layer 2 switching and wire-speed forwarding of upstream and downstream services, support frame filtering and suppression。
- >Support standard 802.1Q Vlan function, support VLAN conversion。
- >Support 4094 VLANs (802.1Q) 。
- >Support dynamic bandwidth allocation(DBA) 。
- >Support QoS, Including business flow classification, priority marking, queuing and scheduling, traffic shaping and traffic control, etc。
- >Support IGMP Snooping、 Support Ethernet port speed limit, loop detection, layer 2 isolation。
- >Support power failure alarm, support remote reset and restart function, support factory parameter recovery function, support data encryption。

>Support status detection and fault report function, support power supply lightning protection and service port lightning protection。

>Industry standard。

**Optical characteristics:**

- >Support wavelength division multiplexing technology single fiber bidirectional (single fiber three-way) transmission
- >Interface Type: SC/PC
- >Maximum split ratio: 1:32
- > Rate: Symmetry up and down 1.25Gbps
- >Transmit wavelength: 1310 nm
- >Receive wavelength: 1490 nm
- >Output optical power: -1~+4dBm
- >Receive sensitivity: < -26dBm
- >The longest distance between OLT and ONU supports 20 kilometers

**Port characteristics:**

- 1\*PON port
- 4\*10/100/1000M Ethernet port

**Other features:**

**Certificates:** Conform to CE, FCC, ROHS etc standard

**EMC / EMI :**Conform to VCCI Class B, FCC Part 15 B standard

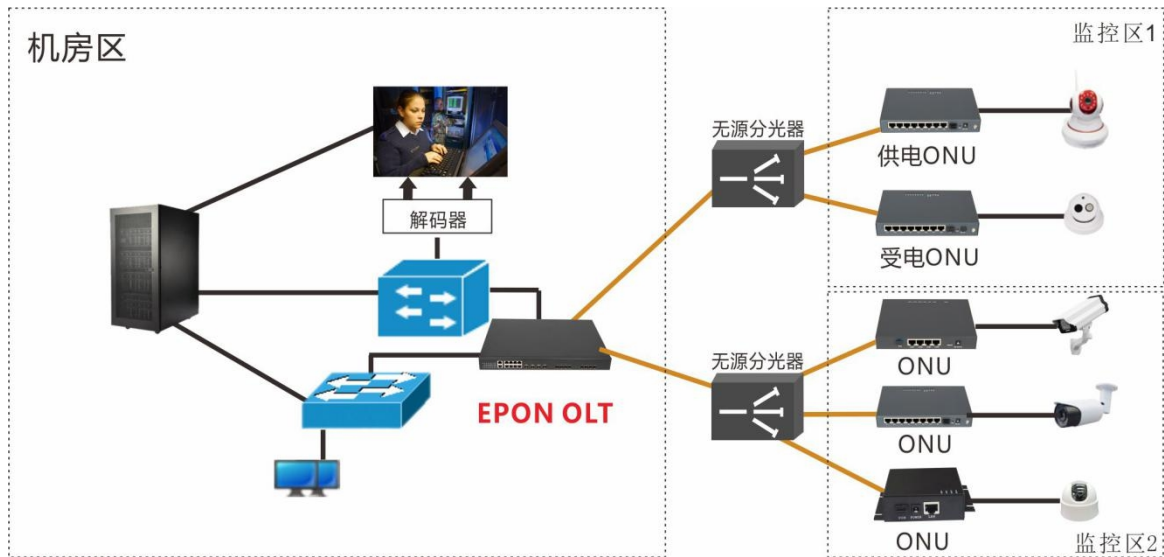
**Safety:** Conform to UL 60950 safety regulations

**Anti-lightning and anti-surge voltage protection:** Conform to ITU-T K.21 standard

**Physical properties:**

- **Physical Size:** 178\*126\*30 (Length×width×height, Unit: mm)
- Power supply: 12VDC  
Power consumption: 6W
- Temperature:  
Working temperature: -25~65℃  
Storage temperature: -40~75℃  
Relative humidity: 10~90% (Non-condensing)

## 应用方案 1：监控



## PON 在监控应用中的优势：

- 1、降低网络建设成本，较传统方案建网成本更低。传统的视频监控系统大多是采用视频同轴线缆或者网线，距离远的采用视频光端机+光缆+视频光端机的形式传送，而使用 PON 技术后一个 ONU 可通过网线连接百米范围内多个的 IP 摄像机，设备数量将大大减少。
- 2、整个网络稳定性大大提高。PON 系统一般是分光器及光纤，主要成分是玻璃，使用寿命长；没有有源设备，也就避免了停电、雷击、过流过压损坏等有源设备的常见故障，网络可靠性高，显著降低维护费用。
- 3、远程视频监控网络覆盖范围广阔：可提供 0.5~20KM 的远距离视频信号接入，基本覆盖中等规模城区的范围，绝大多数市内的摄像机可直接通过光网络将图像信息传送至局方的视频监控平台。
- 4、传输带宽大：每个 ONU 的带宽可在 2M~1Gbps 间动态调整，每个 ONU 平均上行带宽在 30M 左右，即一个 OLT 端口中(主干光纤可带 100 路视频码流)。
- 5、组网灵活：组网模型不受限制，通过不同分光器的组合可以灵活组建链型、树型、星型网络。可根据摄像机的不同地理位置，以及客户的不同需求，调整组网方式，以满足网络资源的合理化配置。
- 6、系统扩容简单。PON 在一定程度上对所使用的传输体制是透明的，监控点数量需要时，传输侧扩容操作方便。