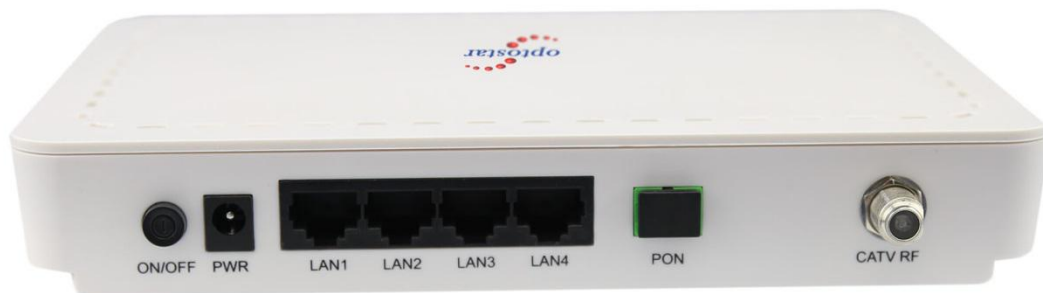# OP-K0401 HGU EPON ONU

OP-K0401 series is fiber to the home multi service access EPON ONU. It's based on the mature, stable, high cost performance EPON technology and has gigabit Ethernet switching, WDMand HFC technology. OP-K0401 series has a higher bandwidth, higher reliability, easy management and good quality of service (QoS) guarantee with technical performance of equipmentmeet the IEEE802.3ah requirements and have good compatibility with thirdparty manufacturers OLT.

EPON technology is a kind of emerging technology which takes advantage of PON technology and Ethernet technology also is a kind of point to multi-point network technology. OLT through the passive optical network to connect multiple ONU with single fiber bidirectional technical can rarely used fiber resources to meet the operators of the multi-user access requirements.
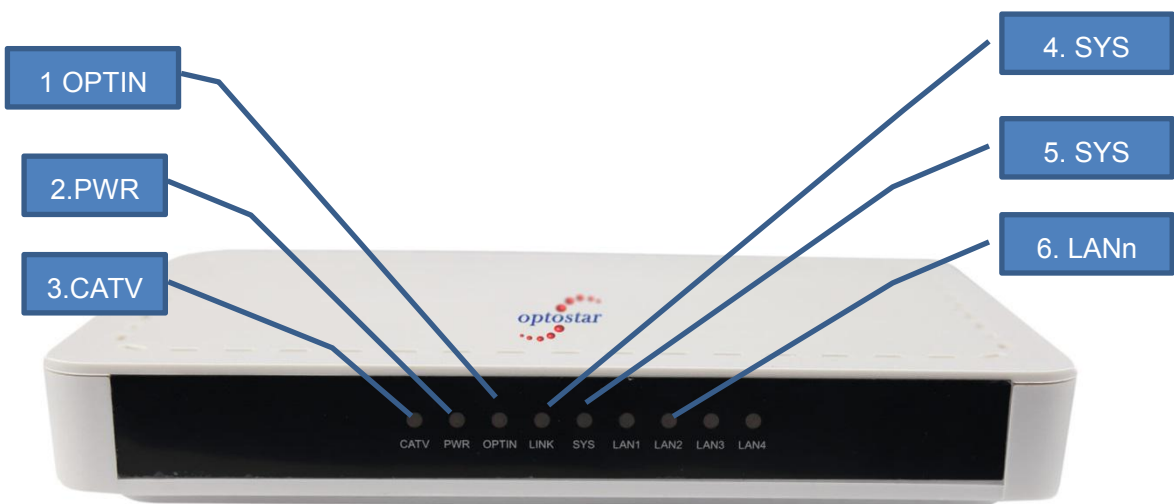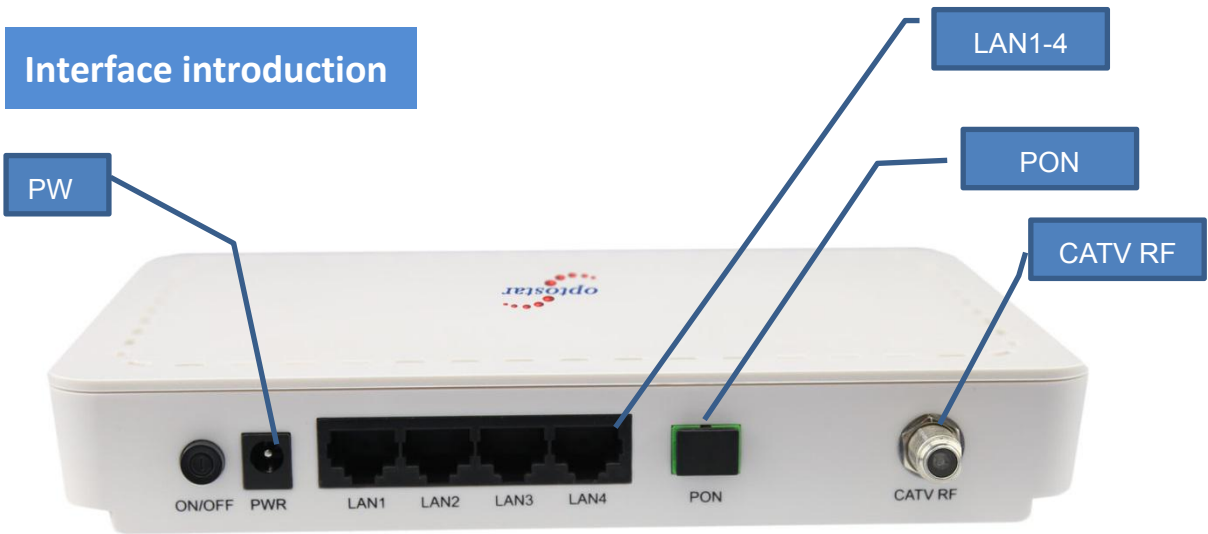
It adopts single fiber WDM technology with downlink wavelength 1550nm and 1490nm, uplink wavelength 1310nm . It only needs one-core fiber to transmit data and CATV service.

Features

➢ Support port-based rate limitation and bandwidth control;
➢ In compliant with IEEE802.3ah Standard

- Up to 20KM transmission Distance
- Support data encryption, group broadcasting, port Vlan separation ,etc.
- Support Dynamic Bandwidth Allocation (DBA)
- Support ONU auto-discovery/Link detection/remote upgrade of software;
- Support port mode of VLAN configuration
- Support power-off alarm function ,easy for link problem detection
- Support broadcasting storm resistance function
- Support port flow control
- Support ACL and SNMP to configure data packet filter flexibly
- Specialized design for system breakdown prevention to maintain stable system
- Support software online upgrading
- EMS network management based on SNMP ,convenient for maintenance

Interface introduction

PW

LAN1-4

PON

CATV RF

ON/OFF   PWR   LAN1   LAN2   LAN3   LAN4   PON   CATV RF

1 OPTIN

2.PWR

3.CATV

4. SYS

5. SYS

6. LANn

CATV   PWR   OPTIN   LINK   SYS   LAN1   LAN2   LAN3   LAN4

	Indicator		Description
1	OPTIN	optical signals	On: Optical in normal; Blinking: Optical power lower than receiver sensitivity ;

			Off: Optical link abnormal;
2	PWR	Power status	On: The ONT is power on; Off: The ONT is Power off;
3	CATV	CATV status	On ： CATV optical normal Off ： The CATV signals are not received
4	LINK	ONU/ONT Register	On: Success to register to OLT; Blinking: In process of registering to OLT; Off: Failed to register to OLT;
5	SYS	System	On:The ONU/ONT system working properly; Blinking: The ONU/ONT software upgrade; Off:The ONU/ONT working abnormal;
6	LANn	LAN port status	On: Ethernet connection is normal; Blinking: Data is being transmitted through the Ethernet port; Off: Ethernet connection is not set up;

Parameter

Item	Parameter
PON Interface	1 EPON optical interface Meet 1000BASE-PX20+ standard Symmetric 1.25Gbps upstream/downstream SC single-mode fiber split ratio: 1:64 Transmission distance 20KM
User Ethernet Interface	4*10/100/1000M auto-negotiation Full/half duplex mode RJ45 connector Auto MDI/MDI-X 100m distance 1 RF output Female F-Type Connector
Power Interface	12V DC Power supply
PON Optical Parameter	Wavelength: Tx 1310nm, Rx1490nm Tx Optical Power: 0～4dBm Rx Sensitivity: -27dBm Saturation Optical Power: -3dBm Connector Type: SC Optical Fiber: 9/125ɥm single-mode fiber

Data Transmission Parameter	PON Throughput: Downstream 950Mbps; Upstream 930Mbps Ethernet: 1000Mbps Packet Loss Ratio: <1*10E-12 latency: <1.5ms
Business Capability	Layer 2 wire speed switching Support VLAN TAG/UNTAG，VLAN conversion Support Port-based speed limitation Support Priority classification Support storm control of broadcast Support loop detection
Network Management	Support IEEE802.3 QAM, ONU can be remotely managed by OLT Support Remote management through SNMP and Telnet Local management
Management Function	Status monitor, Configuration management, Alarm management, Log management
Shell	Plastic casing
Power	<5W, 12V/0.5A power supply adapter
Physical Specifications	Item Dimension：160mm(L)*120mm(W)*32mm(H) Item weight：0.3kg
Environmental Specifications	Operating temperature: 0 to 50ºC Storage temperature: -40 to 85ºC Operating humidity: 10% to 90%(Non-condensing) Storage humidity: 10% to 90%(Non-condensing)

CATV

Item	Parameter
Wavelength	1100-1650nm
Optical return loss	>45dB

Input optical power	-18dBm～0dBm
RF frequency	47MHz~1000MHz
RF output lever	≥78dBuV (@-12~-2dBm@85MHz)
AGC control accuracy	<±1db
Flatness	<±1.5db
CNR	>41dB (@-10dBm@DS22 Channel)
CSO	>60dBc (@-10dBm@DS22 Channel)
CTB	>60dBc (@-10dBm@DS22 Channel)
RF output return loss	>14dB
RF impedance	75Ohm
AGC function	Support

Application

✧ Solution：FTTH、FTTB、FTTO、PON+EOC

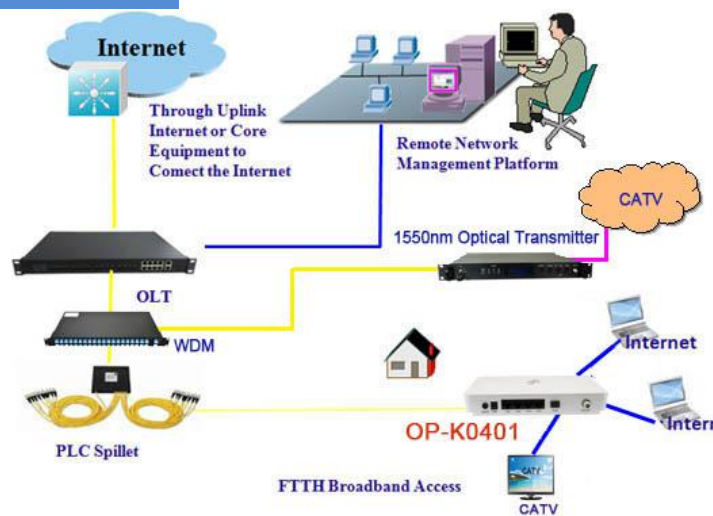✧ Business：Broadband Internet、IPTV、VOD、IP Camera、WIFI

Network Construction

Figure: OP-K0401 Application Diagram

Ordering Information

Product Name	Product Model	Descriptions
HGU EPON ONT	OP-K0401	4*GE Ethernet interface,1*RF interface, 1 EPON interface, plastic casing, external power supply adapter

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