



# FC3004X

## 4GE + WIFI6 AX3000

# Product Overview

The FC3004X is a XPON optical terminal access device (AX3000Mbps) that is highly integrated with dual-frequency Wi-Fi6. It is the end-product of optical fiber for operator, which supports ultra-bandwidth access through XPON upstream technology, and provides users with basic WIFI functions, routing, and gigabit Ethernet functions. The FC3004X upstream network ports are XPON ports. The downstream user ports include four GE electrical ports, one USB port and AX3000 WiFi6 WLAN port.

# Product Highlight

- 1 * XPON interface: SC/UPC (or SC/APC) interface, E/GPON standard
- 4 * Ethernet interface: 10/100/1000Mbps, RJ45, IEEE802.3-2005 standard
- 1 * Standard USB 3.0 interface
- Dual-band WIFI6 AX3000 (2×2 MIMO (2.4G&5G))

# Solution Display

The PON system usually consists of the OLT at the office side, the ONU and the ODN at the user side, and adopts a point-to-multipoint network structure. The ODN consists of single-mode optical fibers and passive optical devices such as optical splitters and optical connectors. It provides the optical transmission medium for the physical connection between the OLT and ONU.Implement FTTX service deployment application.



# Product Specification

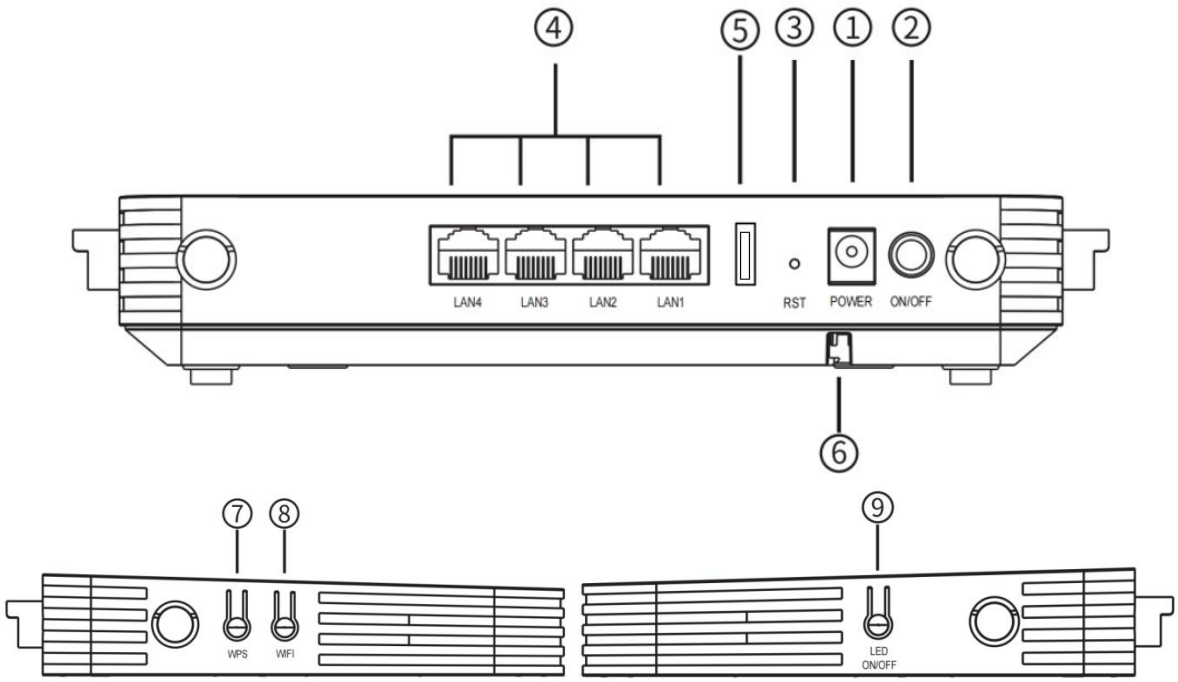
| Hardware Specifications | Description |
|---|---|
| **Port** | 4GE+1USB+WIFI6+G/EPON |
| **LED** | POWER+PON/LOS+INTERNET+LAN+WiFi+WPS+USB |
| **Button** | POWER+RST+WIFI+WPS+LED |
| **Flash&Memory** | Flash: 64MB;  Memory: 256MB; |
| **Power Supply** | 12V/1.5A |
| **Power Consumption** | <15W |
| **Environment Standard** | Operating Temperature: -5~45℃<br>Storage Temperature: -20~70℃<br>Operating Humidity: 5%~95% (non-condensing) |
| **Environment Friendly** | RoHs、CE、CCC |
| **Weight** | 0.35KG |
| **Size (W*D*H) mm** | 190mm*135mm*33mm |
| **PON Module Type** | Class B+, SC/UPC (or SC/APC) |
| **Wavelength** | UP 1310nm, Down 1490nm |
| **TX Optical power** | 0.5~5dBm |
| **RX Optical sensitivity** | -28dBm |
| **Transmission distance** | 0~20km |
| **Transmission rate** | EPON: Upstream 1.25Gbps/Downstream 1.25Gbps<br>GPON: Upstream 1.25Gbps/Downstream 2.5Gbps |
| **LAN Interface type** | RJ45 (10/100/1000Mbps) |
| **USB** | USB3.0 |
| **WIFI** | Dual-band WIFI6 AX3000 (2×2 MIMO (2.4G&5G)) |

# WiFi6 (AX3000)

| Attributes | | Description |
|---|---|---|
| **WiFi6 (AX3000)** | WiFi Protocol | 2.4GHz supports 802.11b/g/n/ax<br>5GHz supports 802.11a/n/ac/ax |
| | Transmit Power | 2.4G 100Mw; 5G /200mW; |
| | Antenna Gain | 5dBi |

| | | |
|---|---|---|
| | Antenna | Dual-antenna MIMO (2*2) (2.4G&5G) |
| | WLAN Penetrate | One reinforced concrete wall or two ordinary brick walls (non-reinforced concrete) |
| | WLAN Access Capability | 64/SSID |
| | Channel | 2.4GHz (channel 1-13)<br>5GHz (channel 36-161) |
| | WPS | WLAN terminal devices with WPS Push Button function establish connection within 2 minutes |
| | WLAN Security Function | WPA-PSK、WPA2-PSK、WPA3、WPA-PSK/WPA2-PSK<br>AES、AES+TKIP |
| | Air Speed | 574Mbps (2.4GHz)<br>2402Mbps (5GHz) |
| | Multicast | WMM (Wi-Fi Multi Media) |

# Panel view




| Interface | | Description |
|---|---|---|
| 1 | POWER | 12V/1.5A, power input interface |
| 2 | ON/OFF | Power switch button |
| 3 | RST | Reset the ONT |
| 4 | LAN1/LAN2/LAN3/LAN4 | RJ45 10/100/1000M Base-T Ethernet interface |
| 5 | USB | USB interface |
| 6 | PON | G/EPON interface |
| 7 | WPS | WPS switch button |
| 8 | WIFI | WIFI switch button |

| | | |
|---|---|---|
| 9 | LED ON/OFF | LED switch button |

# LEDs Operating Status

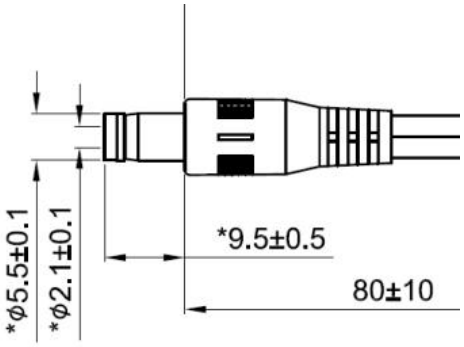
The operation status of FC3004X can be determined by using the front LED. The panel LED indicator will display the status of each interface. The meaning of LED is shown in the following table.

| LED | Color | Indicates |
|---|---|---|
| PWR | Green/Solid | Normal |
| | OFF | No power |
| LOS | Red | Optical link is NOT OK (rang: out of -8~-29dBm) |
| | Green/Flash | Optical link is OK (rang: in -8~-29dBm) |
| | Green/Solid | Registered successful and active |
| INTERNET | Green/Solid | The WAN interface of the internet is configured |
| | OFF | The Internet WAN interface is not configured or the Internet WAN interface is configured but does not take effect. |
| LAN1/ LAN2/ LAN3/ LAN4 | Green/Flash | Device connected |
| | | Active or Link data receive and transfer (Green/Flash) |
| | OFF | Device not connected |
| | | Link down |
| USB | Green | Connected and data receive and transfer |
| | OFF | No power/error/USB is not connected/USB disable |
| WIFI | Green/Flash | The terminal is connected to transmit data wirelessly |
| | OFF | No power/WIFI disable |
| WPS | Green | WPS started working |
| | OFF | WPS is not working |

# Plug-In Units

The device uses a standard 5.5*2.1*9.5mm Non tuning fork DC head interface power adapter. Select an appropriate adapter for power supply according to device energy consumption.
The below shows the electrical characteristics of the adapter:






| Characteristic | Power adapter |
|---|---|
| AC: INPUT | AC: 100 ~ 240V; 50/60Hz |

| | |
|---|---|
| DC: OUTPUT | DC: 12V/1.5A |
| Rated Power | 18W |

# Software Specification

| Attributes | Description |
|---|---|
| **XPON Feature** | ITU-T G.984.1-4<br>ITU-T G.988/TR255/TR156<br>IEEE802.3ah<br>15 TCONTs/256GEM ports<br>8 Egress queues per TCONT at least<br>VLAN/priority/VEIP gem mapping mode<br>SN/LOID/SN+Password authentication<br>Performance monitoring: eth/Gem port<br>Dying gasp |
| **Ethernet Port** | Ethernet port-based VLAN tags and tag removal<br>MAC address learning<br>10/100/1000Mbps Auto negotiation |
| **L2 Feature** | MAC learning (SVL)/aging<br>Support max frame length to 1518 bytes<br>VLAN tagging for untagged packets<br>Support VLAN 1-4094 |
| **L3 Feature** | PPPoE/Static IP/DHCP<br>NAT/NAPT<br>Port forwarding ALG, UPnP, DDNS<br>IPv4/IPv6 dual stack, DS-Lite Static, and Default Routes<br>Multiple services on one WAN port |
| **QoS** | Support 8 Queues with Strict Priority<br>Ethernet port rate limitation<br>802.1 priority<br>SP/WRR<br>Service flow classification |
| **Multicast** | IGMPv2 (RFC 2236) and IGMPv3 (RFC 3376)<br>IGMP snooping and IGMP Proxy<br>MLDv1 |
| **Management** | OMCI/WEB UI/TR069<br>Telnet/SSH Management with CLI commands<br>Dual-system software backup and rollback |

# Purchase Info

| Model Number | Description |
|---|---|
| **FC3004X** | 4GE+1USB+WIFI6+G/EPON,<br>Accessories: Power Adapter, RJ45 cable; |