

# AC1200 Dual Band Gigabit XPON Gateway

## F680A



### Product Highlights

- Dual band concurrent Wi-Fi up to 1200Mbps enables multiple wireless HD video streams
- Up to 5dBi gain external antennas
- The dual image ensures uninterrupted services during software download or upgrade, thereby enhancing software reliability.



### Overview

The **F680A** is an AC1200 dual band Gigabit Premium triple-play XPON gateway. It comes with 4GE LAN ports, one phone port and next generation multi-stream Wi-Fi, operating simultaneously in 2.4GHz 2x2 over 802.11n and 5GHz 2x2 over 802.11ac. Based on customer requirements, the maximum 5dBi gain antennas can enhance the Wi-Fi coverage area and improve the performance.

### Features



#### Incredible Wi-Fi Speeds

##### ■ Dual band Wi-Fi, Superior performance of

##### Wireless 11n and 11ac Transmission

The **F680A** supports 802.11b/g/n Wi-Fi @2.4GHz(2x2) and 802.11a/n/ac Wi-Fi @5GHz(2x2) in Dual-Band concurrent Wi-Fi mode so that its Wi-Fi speed can reach up to 1.2Gbps, consisting of 300Mbps(802.11n 2x2@2.4GHz) and 866Mbps(802.11ac 2x2@5GHz).

##### ■ Mature IPv6 Capability

With support for IPv4/IPv6 Dual Stack, the **F680A** helps operators and end users to achieve future-proof network with smooth evolution.

##### ■ Highly Reliable Features

The dual image ensures uninterrupted services during software download or upgrade, thereby enhancing software reliability. The highly reliable lightning protection design provides lightning and surge protection of 4 kV for the adapter, 1.5 kV for the POTS port, and 1.5 kV for the Ethernet ports.

##### ■ Quality of Service(QoS)

The QoS features of the **F680A** enable service providers to design QoS policies and prioritize mission-critical services such as IPTV and VoIP freely based on their individual service plans. So, service providers could deliver real multi-play applications to users and increase network efficiency.

##### ■ Flexible Management Modes

The **F680A** can be managed by two ways: one is complete OMCI complying with ITU-T G.988, the other is OMCI plus TR-069.

Service providers can choose their preferred ways to manage the device.



#### High Quality Streaming



#### Easy Sharing Content

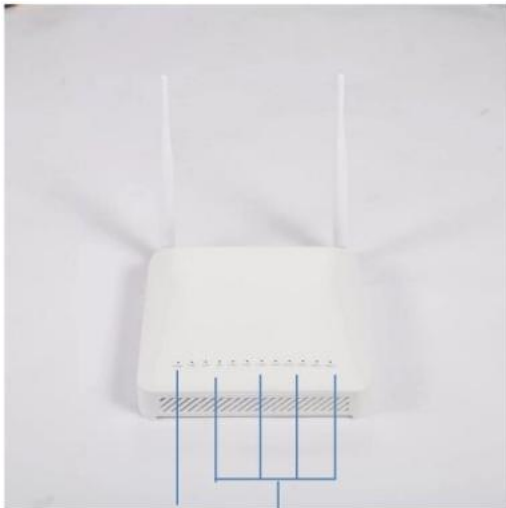
### Technical Specifications

| Hardware   |                                                                                                                                                                                                                                                                                                                                                                |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interfaces | <ul style="list-style-type: none"><li>• ISC/UPC connector for XPON</li><li>• 4 RJ-45 ports for GE&amp;FE interface</li><li>• 1 RJ-11 ports for VoIP</li></ul>                                                                                                                                                                                                  |
| Buttons    | <ul style="list-style-type: none"><li>• Power On/Off</li><li>• WPS</li><li>• Reset</li><li>• Wi-Fi</li></ul>                                                                                                                                                                                                                                                   |
| LEDs       | <ul style="list-style-type: none"><li>• Power, PON, LOS, Internet, LAN1, LAN2, LAN3, LAN4, Phone, Wi-Fi, WPS</li></ul>                                                                                                                                                                                                                                         |
| Antenna    | <ul style="list-style-type: none"><li>• External antennas</li></ul>                                                                                                                                                                                                                                                                                            |
| VoIP       | <ul style="list-style-type: none"><li>• SIP (RFC3261)</li><li>• Codec: G.711 (<math>\mu</math>-law and A-law), G.729, G.722</li><li>• RTP/RTCP (RFC 1890)</li><li>• Echo cancellation</li><li>• VAD/CNG</li><li>• DTMF</li><li>• T.30/T.38 FAX</li><li>• Caller Identification/Call Waiting/Call Forwarding/Call Transfer/Call Hold/3-way Conference</li></ul> |
| Wi-Fi      | <ul style="list-style-type: none"><li>• Frequency: 2.4 GHz, 5GHz</li><li>• IEEE 802.11a/n/ac Wi-Fi@5GHz (2×2)</li><li>• IEEE 802.11b/g/n Wi-Fi @2.4GHz (2×2)</li><li>• WPA/WPA2 Security</li><li>• Up to four broadcast/hidden SSIDs for each band</li></ul>                                                                                                   |

Technical Specifications

| Software                      |                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Networking                    | <ul style="list-style-type: none"><li>• IPv4/IPv6 Dual Stack</li><li>• SNTP client</li><li>• NAT/ALG</li><li>• Static routing/Dynamic routing</li><li>• PPPoE client/passthrough</li><li>• DNS client/relay</li><li>• DHCP client/server</li><li>• IGMPand MLD snooping/proxy</li></ul>                                                                                                       |
| QoS                           | <ul style="list-style-type: none"><li>• Flexible packet classification</li><li>• Up to eight queues</li><li>• SP/WRR/SP+WRR</li><li>• Ingress rate limit</li><li>• Egress shaping</li><li>• WMM(Wi-Fi Multi Media)</li></ul>                                                                                                                                                                  |
| Security                      | <ul style="list-style-type: none"><li>• Traffic filtering based on UNI port, VLAN ID, 802.1p, UNI+802.1p or VLAN+802.1p</li><li>• DoS attack defending</li><li>• Multiple VPN(IPSec, PPTP)passthrough</li><li>• MAC address filtering</li><li>• Broadcast/Unicast/Multicast attack protection</li><li>• Broadcast packet rate limit</li><li>• Dual image for firmware auto rollback</li></ul> |
| Management                    | <ul style="list-style-type: none"><li>• TR-069/OMCI remote management</li><li>• WEB GUI management</li><li>• Local built-in diagnostic function</li><li>• Logs and statistics</li><li>• Remote upgrade by HTTP</li></ul>                                                                                                                                                                      |
| Others                        |                                                                                                                                                                                                                                                                                                                                                                                               |
| Electrical Characteristics    | <ul style="list-style-type: none"><li>• Power input:12V DC</li><li>• Power consumption:9W</li></ul>                                                                                                                                                                                                                                                                                           |
| Physical Characteristics      | <ul style="list-style-type: none"><li>• Net weight:500g</li><li>• Dimensions:280x215x50 mm</li></ul>                                                                                                                                                                                                                                                                                          |
| Environmental Characteristics | <ul style="list-style-type: none"><li>• Operating temperature:0° C~40° C; (32° F~104° F)</li><li>• Humidity:5%~95%(non-condensing)</li></ul>                                                                                                                                                                                                                                                  |
| Certification                 | <ul style="list-style-type: none"><li>• CE certification</li><li>• Wi-Fi certification</li></ul>                                                                                                                                                                                                                                                                                              |

### Connection Diagram

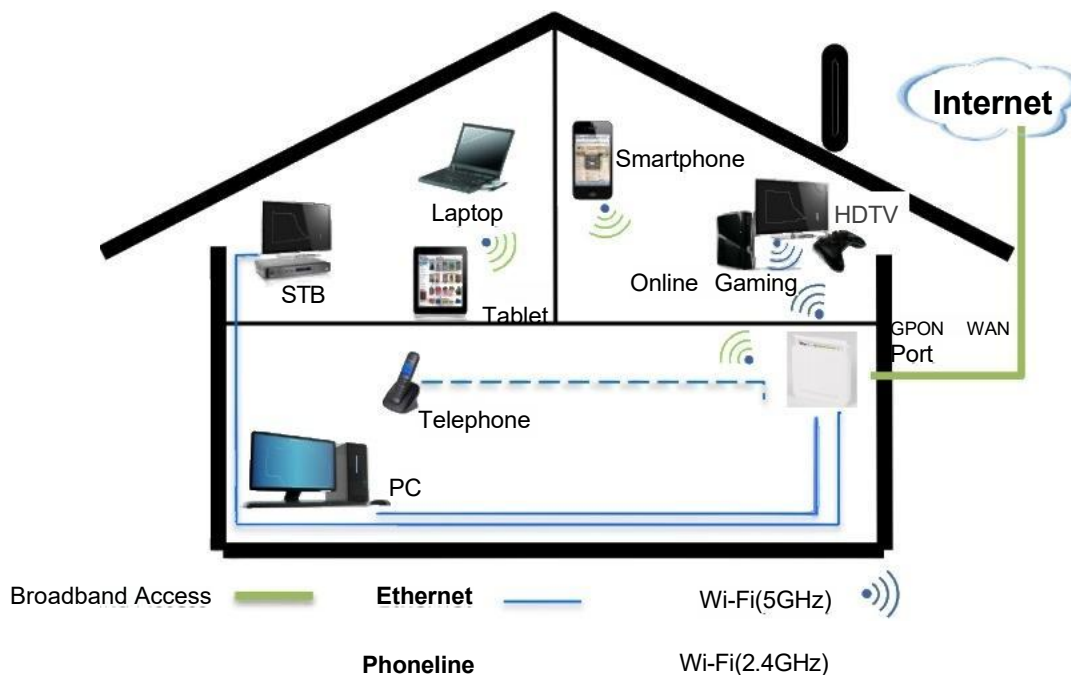


Phone LAN 1-4



ON/OFF USB

### Application Scenario



## FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- To maintain compliance with FCC 's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.