

ZXHN F680

Dual Band Concurrent 11ac Advanced GPON Gateway

The F680 is a high-end home gateway in ZTE FTTH solution. By using the GPON technology, ultra-broadband access is provided for home and SOHO users. The F680 provides two POTS ports, four GE ports, one USB 2.0 port, one USB 3.0 port, and it supports 802.11b/g/n Wi-Fi @ 2.4G(3x3) and 802.11a/n/ac Wi-Fi @ 5G(3x3).



Highlights

■ Dual band Wi-Fi, Superior performance of Wireless 11n and 11ac Transmission

The F680 supports 802.11b/g/n Wi-Fi @ 2.4G(3x3) and 802.11a/n/ac Wi-Fi @ 5G(3x3) in Dual-Band concurrent Wi-Fi mode so that its Wi-Fi speed can reach up to 1.75Gbps, consisting of 450Mbps (802.11n 3x3 @ 2.4GHz) and 1.3Gbps (802.11ac 3x3 @5GHz).

■ Advanced USB 3.0 Functions

USB3.0 can provide 10x faster speed than USB2.0, and can provide over 1Gbps data rate to transfer Blue-ray film in minutes. Compared with USB2.0, there is no bottleneck for LTE module with throughput over 100Mbps.

■ Full GE Ports for Speeds 10x Faster Than Fast Ethernet

Gigabit Ethernet ports are available on the LAN (home networking) side. With Gigabit Ethernet ports, users can watch online videos, listen to podcasts, download large files and move massive amounts of data within their home network or out to the Internet at the same time.

■ Comprehensive VoIP Services

The F680 offers VoIP(Voice over IP) service via two FXS ports. The user may have up to two phone numbers, one private and one public, when two VoIP accounts are opened. It is suitable for SOHO application.

■ Mature IPv6 Capability

With support for IPv4/IPv6 Dual Stack, the F680 helps operators and end users to achieve future-proof network with smooth evolution.

■ Advanced Content Sharing: DLNA Media Server

The F680 can act as a DLNA Digital Media Server(DMS). Any DLNA Digital Media Player(DMP) connected to the network, could find and play all the media contents including video, music and photos on the storage connected to the USB ports on F680.

■ Robust TR-069 Remote Management

The F680 works with TR-069 standard management specifications, reducing the manpower needed for on-site maintenance, and increasing CSI(Customer Satisfaction Index). This unique feature not only offers users a true "plug-and-play" experience but also reduces deployment complexity, thereby saving operation and maintenance costs.

■ GPON and XG-PON1 Coexistence

ITU-T G.984.5 has defined the WBF(Wavelength Block Filter) feature to coexist with XG-PON1 ONT within one ODN network and one feed fiber. Now the optical modules installed in ZTE full serial GPON ONTs have integrated with WBF feature for future-proof evolution.

Technical Specifications

GPON

- ITU-T G.984.x/G.988 GPON standards
- Class B+ optical module, Class 1 Laser
- 1.244Gbps burst mode upstream, 2.488Gbps downstream
- Upstream 1310nm, Downstream 1490nm

Wi-Fi

- Frequency: 2.4 GHz, 5GHz
- Wi-Fi EIRP: Max.200mw for each band
- IEEE 802.11a/n/ac Wi-Fi @ 5G(3x3)
- IEEE 802.11b/g/n Wi-Fi @ 2.4G(3x3)
- WEP/WPA/WPA2 Security
- Up to four broadcast/hidden SSIDs

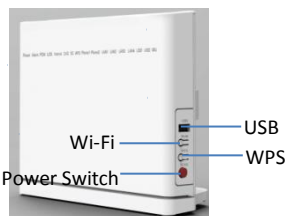
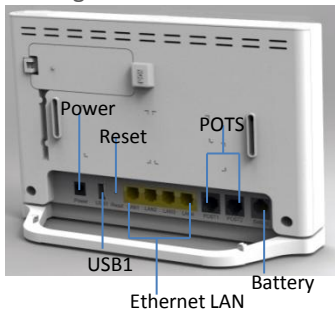
VoIP

- SIP (RFC3261)
- Codec: G.711 (μ -law and A-law), G.723, G.729, G.722
- RTP/RTCP(RFC 1890)
- Echo cancellation
- VAD/CNG
- DTMF
- T.38 FAX
- Caller Identification/Call

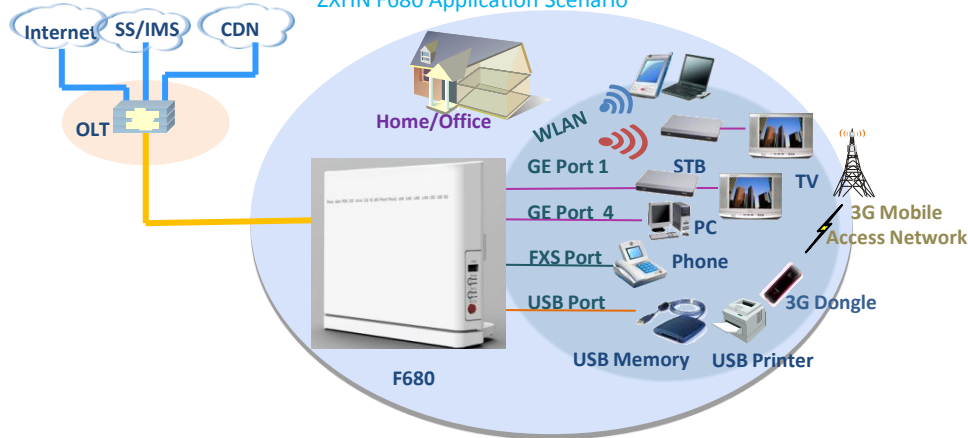
Waiting/Call Forwarding/Call Transfer/Call Hold/3-way Conference

USB

- DLNA DMS
- File/Printer sharing
- USB backup/Restore configuration
- 3G dongle



ZHFN F680 Application Scenario



Networking

- IPv4/IPv6 Dual Stack
- SNTP client
- NAT/ALG
- Static routing/Dynamic routing
- PPPoE client/passthrough
- DNS client/relay
- DHCP client/server
- IGMP and MLD snooping/proxy

Security

- Traffic filtering based on UNI port, VLAN ID, 802.1p, UNI+802.1p or VLAN+802.1p
- DoS attack defending
- Multiple VPN (IPSec, PPTP) passthrough
- MAC address filtering
- Broadcast/Unicast/Multicast attack protection
- Broadcast packet rate limit
- Dual image for firmware auto rollback

QoS

- Flexible packet classification
- Up to eight queues
- SP/WRR/SP+WRR
- Ingress rate limit
- Egress shaping
- WMM(Wi-Fi Multi Media)

Management

- TR-069 remote management
- OMCI management
- WEB GUI management
- Local built-in diagnostic function
- Logs and statistics
- Remote upgrade by HTTP

Hardware Characteristics

- WAN: one SC/APC connector for GPON
- LAN: four RJ-45 ports for GE interface
- FXS: two RJ-11 ports for VoIP
- USB: one USB 2.0 host interface, one USB 3.0 host interface
- Wi-Fi: 802.11b/g/n(3x3), 11ac(3x3)
- BATTERY: one RJ-11 port for UPS monitor
- Button: WPS, Wi-Fi, Reset, Power ON/OFF
- LED Status indicators: Power, Alarm, PON, LOS, Internet, 2.4G, 5G, WPS, Phone1, Phone2, LAN1, LAN2, LAN3, LAN4, USB1, USB2, BBU

Electrical Characteristics

- Power input: 12V DC
- Power consumption: less than 13W

Physical Characteristics

- Net weight: about 600g
- Dimensions(WxDxH): 220x35x155mm

Environmental Characteristics

- Operating Temperature: 0°C ~ 40°C (32°F ~ 104°F)
- Humidity: 5% ~ 95% (non-condensing)

Certification

- CE certification
- Wi-Fi certification

Note: Not every listed feature will be included in the shipping product. We reserve the right to make changes of technical specifications, housing or design without prior notice.