AC2350 Dual Band Gigabit Premium GPON Gateway

ZXHN F680 V9.0

Product Highlights

- Dual band concurrent Wi-Fi up to 2350Mbps enables multiple wireless HD video streams
- MU-MIMO and Beamforming enable dramatic improvement in 11ac performance
- USB interface for shared storage or 3G/LTE Dongle
- Flexible management methods: OMCI or OMCI+TR-069

Overview

The ZXHN F680 V9.0 is an AC2350 dual band Gigabit Premium triple-play GPON gateway. It comes with four Gigabit Ethernet LAN ports, two phone ports, one USB2.0 and one USB3.0 and next generation multi-stream Wi-Fi, operating simultaneously in 2.4GHz 4x4 over 802.11n and 5GHz 4x4 over 802.11ac. Excellent Wi-Fi performance allow the customer to web surf or watch the video, play the online game with better experience.

Features

Incredible Wi-Fi Speeds

High Quality Streaming

Easy Sharing Content

■ Dual Band Concurrent Wi-Fi

The F680 V9.0 supports 802.11b/g/n Wi-Fi @2.4GHz(4x4) and 802.11a/n/ac Wi-Fi @5GHz(4x4) in Dual-Band concurrent Wi-Fi mode so that its Wi-Fi speed can reach up to 2350Mbps, consisting of 600Mbps (802.11n 4x4 @ 2.4GHz) and 1750Mbps (802.11ac 4x4 @5GHz).

■11ac Wave2 support MU-MIMO and Beamforming

The F680 V9.0 supports up to four clients simultaneously on 802.11ac@5GHz and thus significantly improves the efficiency of Wi-Fi network. It supports implicit beamforming and enables dramatic improvement in 11ac performance.

■Mature IPv6 Capability

With support for IPv4/IPv6 Dual Stack, the F680 V9.0 helps operators and end users to achieve future-proof network with smooth evolution.

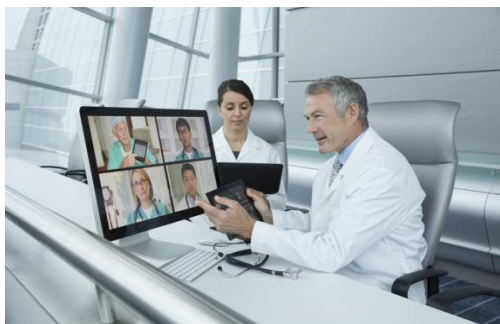### ■ Advanced Content Sharing: DLNA Media Server

The F680 V9.0 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 from storage devices connected to the USB port of F680 V9.0.

■ Quality of Service (QoS)

The QoS features of the F680 V9.0 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 F680 V9.0 can be managed by two ways: one is complete OMCI complying with ITU-T G.988, the other is OMCI plus TR-069 complying with BBF TR-142 framework. Service providers can choose their preferred ways to manage the device.

Technical Specifications

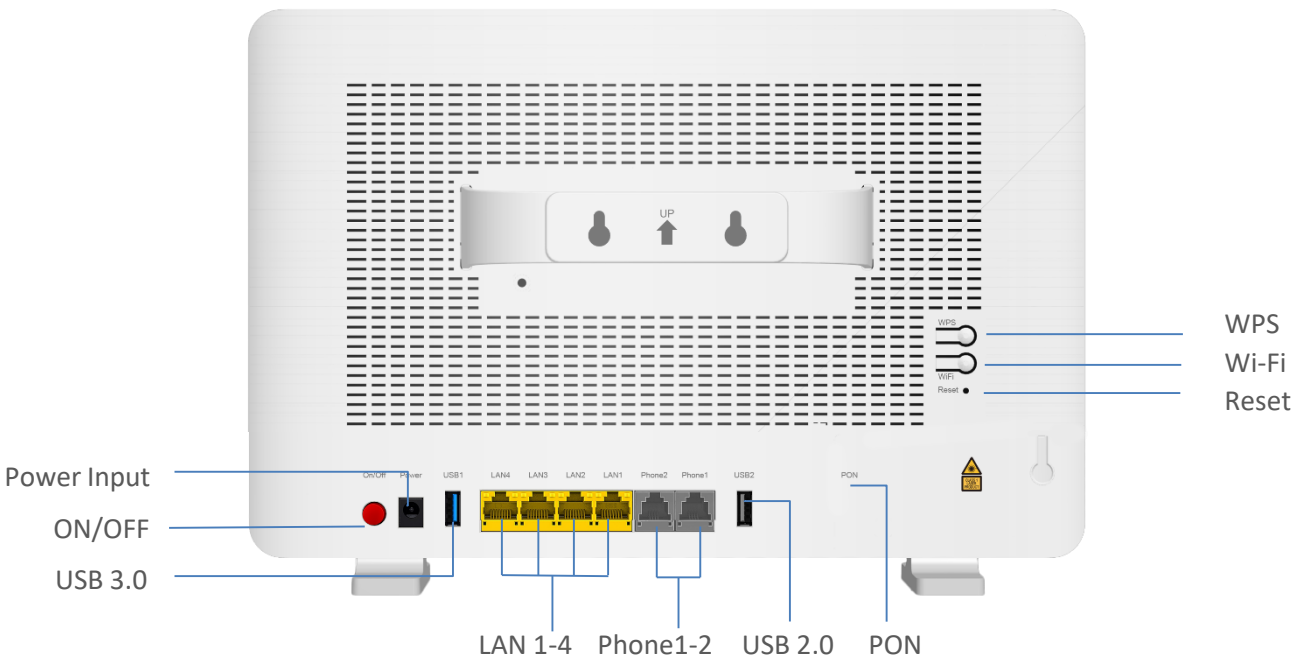| Hardware	
Interfaces	• 1 SC/APC connector for GPON • 4 RJ-45 ports for GE interface • 2 RJ-11 ports for VoIP • 2 USB ports (1 USB2.0, 1 USB 3.0)
Buttons	• Power On/Off • WPS • Reset • Wi-Fi
LEDs	• Power, PON, LOS, Internet, LAN1, LAN2, LAN3, LAN4, Phone1, Phone2, 2.4G, 5G, WPS, USB
Antenna	• Internal antennas
VoIP	• SIP (RFC3261) • Codec: G.711 (µ-law and A-law), G.729, G.722 • RTP/RTCP(RFC 1890) • Echo cancellation • VAD/CNG • DTMF • T.30/T.38 FAX • Caller Identification/Call Waiting/Call Forwarding/Call Transfer/Call Hold/3-way Conference
Wi-Fi	• Frequency: 2.4 GHz, 5GHz • IEEE 802.11a/n/ac Wi-Fi @ 5GHz(4x4) • IEEE 802.11b/g/n Wi-Fi @ 2.4GHz(4x4) • MU-MIMO • Beamforming • WEP/WPA/WPA2 Security • Up to four broadcast/hidden SSIDs for each band • Maximum transmission power(EIRP) 800 mW
USB	• Super-speed USB 3.0 port • DLNA DMS • File/Printer sharing • USB backup/Restore configuration • 3G/LTE dongle

Technical Specifications

Software	
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
QoS	• Flexible packet classification • Up to eight queues • SP/WRR/SP+WRR • Ingress rate limit • Egress shaping • WMM(Wi-Fi Multi Media)
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
Management	• TR-069/OMCI remote management • WEB GUI management • Local built-in diagnostic function • Logs and statistics • Remote upgrade by HTTP

Others	
Electrical Characteristics	• Power input: 12V DC • Power consumption: Less than 16 W
Physical Characteristics	• Net weight: 700 g • Dimensions: 305x212x75 mm
Environmental Characteristics	• Operating temperature: 0°C~ 40°C; (32°F ~ 104°F) • Humidity: 5% ~ 95% (non-condensing)
Certification	• CE certification • Wi-Fi certification

Connection Diagram

WPS
Wi-Fi
Reset

Power Input
ON/OFF
USB 3.0

LAN 1-4　Phone1-2　USB 2.0　PON

Application Scenario

3G/LTE Mobile Access Network

Internet

Smartphone
Laptop
HDTV
Online Gaming
STB
Tablet
GPON WAN Port
Telephone
3G/LTE dongle
PC
Printer

Broadband Access		Ethernet	Wi-Fi(5GHz)	Phoneline
3G/LTE Access		USB	Wi-Fi(2.4GHz)	