HONGDA TCF WIFI 6

Dual Band 802.11 AC/AX

Dual Band 802.11ax 1800Mbps Wireless Gigabit Router

OFDMA · WPA3 · Guest Network · BSS Coloring · WAVE 2 MU-MIMO · Beam forming

Overview

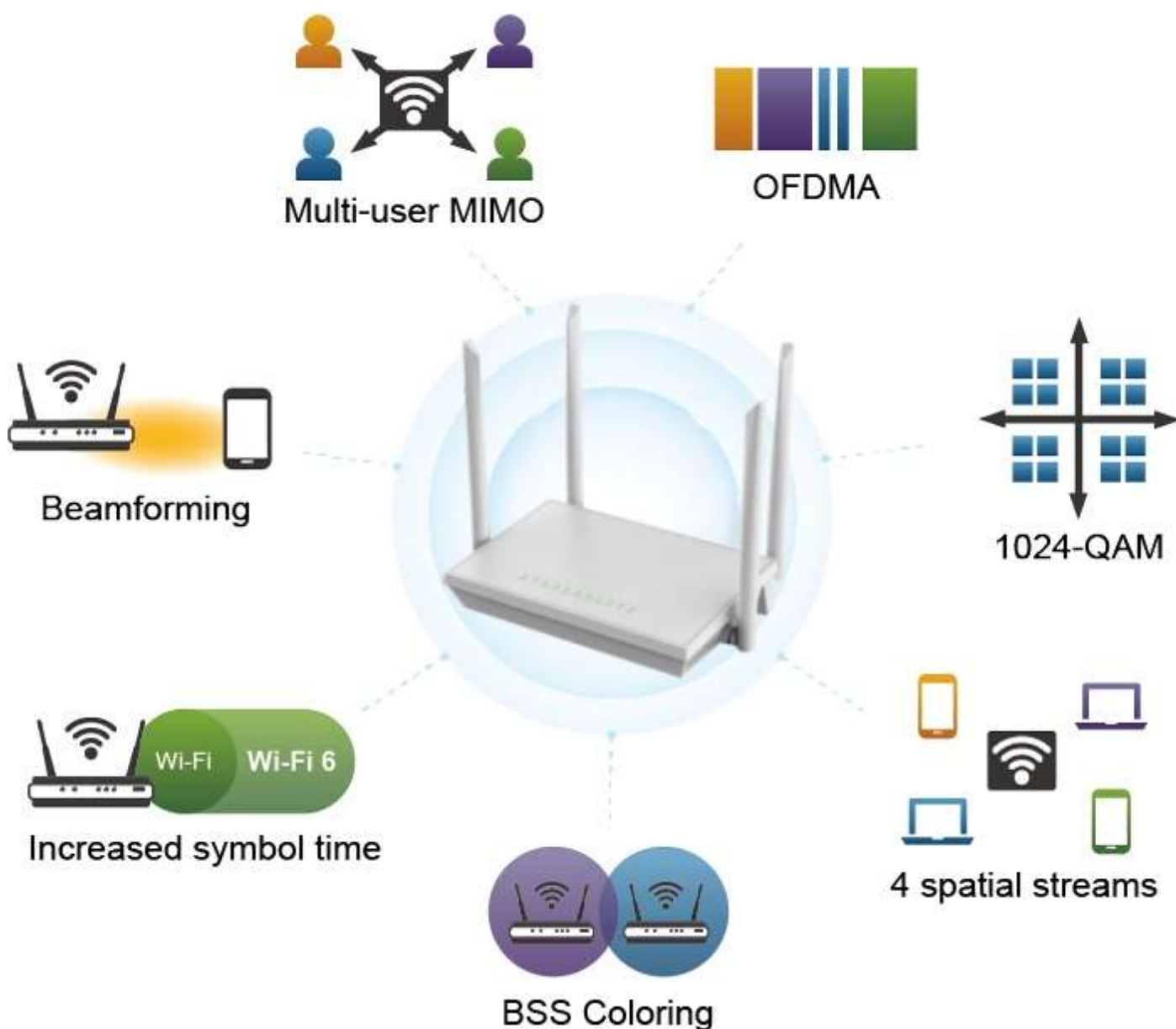### Amazing Next-generation Wireless High-speed Connection

HONGDA TCF WIFI 6 as Dual Band 802.11ax 1800Mbps Wireless Gigabit Router, supporting MU-MIMO, Wave 2.0, OFDMA and Mesh technology, provides a maximum wireless speed of 1200Mbps in the 5GHz band and 600Mbps in the 2.4GHz band. The maximum number of client users is up to 64, ensuring more secure and robust connectivity with the adoption of Wi-Fi 6 technology.

The HONGDA TCF WIFI 6, suitable for home multi-device streaming connection, smart home and other environments, provides better speed and multi-installation connectivity for high-efficiency networking. Equipped with the next-generation Wi-Fi 6 (802.11ax) wireless network standard, the total bandwidth reaches 1800Mbps, and the 4-stream transmission technology improves the transmission efficiency of multiple devices.

Benefits of Wi-Fi 6 technology

As OFDMA, a multi-user version of OFDM, enables the concurrent AP to communicate (uplink and downlink) with multiple clients by assigning subsets of subcarriers called resource units (RUs) to the individual clients. With Mesh and Seamless Roaming technologies, it provides a better Wi-Fi user experience, reducing the likelihood of users turning off Wi-Fi and putting more load on the cellular network. These technologies also can solve Wi-Fi congestion issues in open workspaces and conference rooms. The HONGDA TCF WIFI 6 can offer more powerful throughput coverage of up to 64 client users.

Multi-user MIMO

OFDMA

Beamforming

1024-QAM

Increased symbol time

Wi-Fi   Wi-Fi 6

4 spatial streams

BSS Coloring

OFDMA (Orthogonal Frequency Division Multiple Access)

OFDMA is a multi-user evolved version based on OFDM digital modulation technology. In the Wi-Fi 6 (802.11ax) standard, the main function of OFDMA is to improve network performance. Orthogonal frequency division multiple access (OFDMA) enables users to simultaneously operate in the same channel and therefore improves efficiency, latency, and throughput.
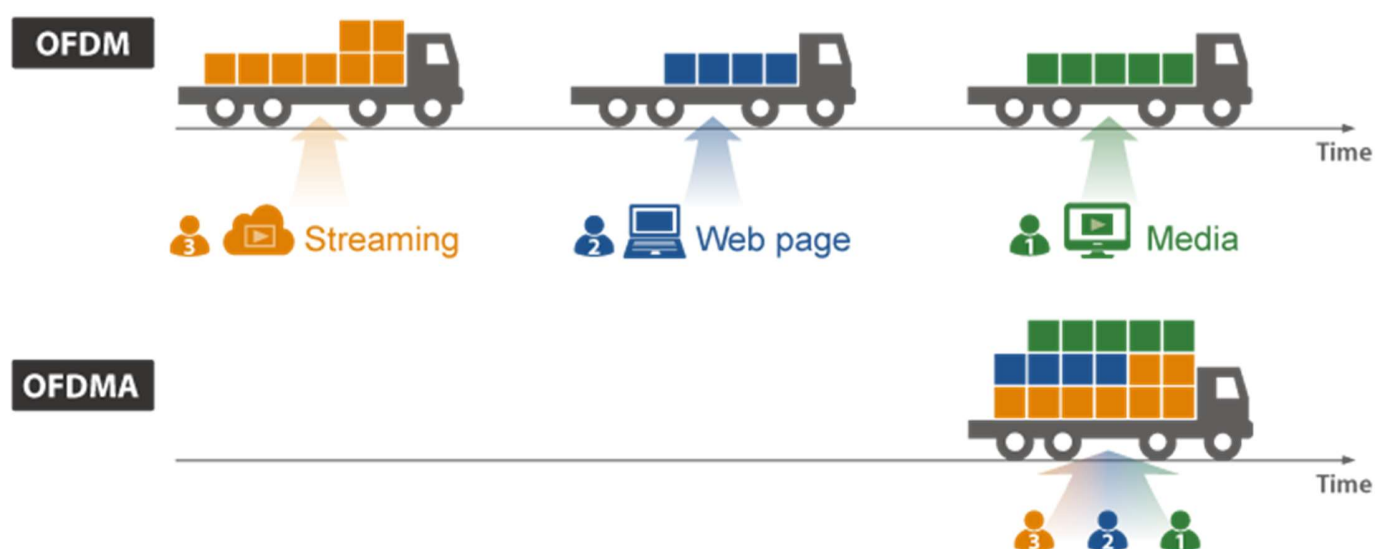
Beamforming

Beamforming is to improve your Wi-Fi signal when you are far away from your router. When you use beamforming, Wi-Fi beamforming narrows the focus of that router signal, sending it directly to your devices in a straight line, thus minimizing surrounding signal interference and increasing the strength of the signal that ultimately bring you the following benefits:

- Extend your Wi-Fi coverage
- Deliver a more stable Wi-Fi connection
- Deliver better Wi-Fi throughput
- Reduce router interference

Dedicated and stable signals

Signal loss

Super Power Dual band WLAN Solution

Adopting the IEEE 802.11ax Wi-Fi 6 standard, provides a high-speed transmission. The maximum wireless speed in 2.4GHz band is up to 574Mbps, and in the 5GHz band is up to 1201Mbps. Both the 2.4GHz and 5GHz wireless connections can also be used simultaneously. Furthermore, which provides higher stability to meet the stringent requirements of the solution.
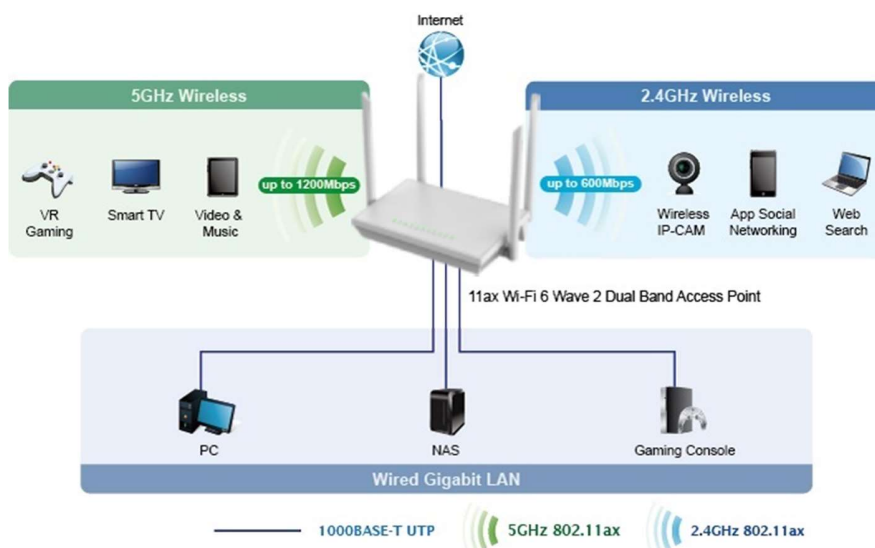
Hardware Specifications	
Interface	WAN Port: 1 x 10/100/1000 Mbps - RJ45 port LAN Port: 4 x 10/100/1000 Mbps - RJ45 port (LAN 1~4)
Antenna	Four external 7dBi high gain omnidirectional antennas (2.4GHz x 2, 5GHz x 2)
Button	1 x WPS/reset button Press for about 1 second to enable WPS function. Press for over 5 seconds to reset the device to factory default.
LED Indicators	PWR x 1 LAN x 4 WAN x 1 WLAN (2.4GHz & 5GHz) x 2
Dimensions (W x D x H)	234 x 148 x 31mm
Weight	343g
Power Requirement	12V DC, 1A
Wireless Interface Specifications	
Standard	IEEE 802.11a/n/ac/ax 5GHz IEEE 802.11g/b/n/ax 2.4GHz
Frequency Band	Simultaneous 2.4GHz and 5GHz
Data Rates	2.4GHz up to 600Mbps 5GHz up to 1200Mbps
Channel	2.4GHz FCC (America): 2.412~2.462GHz (11 Channels) ETSI (Europe): 2.412~2.472GHz (13 Channels) 5GHz FCC: 5.180~5.240GHz, 5.745~5.825GHz ETSI: 5.180~5.700GHz *The actual channels in application may vary depending on the regulations in different regions and countries.
Channel Width	20MHz, 40MHz, 80MHz
Max. RF Power / EIRP	EIRP < 22dBm
Transmit Power Control	Low, Medium, High
Wireless Management Features	
Encryption Security	WPA/WPA2/WPA3
Wireless Security	Wireless MAC address filtering Supports WPS (Wi-Fi Protected Setup)
Wireless Advanced	Supports dual-SSID (2.4GHz and 5GHz) Supports guest network
Max. Supported Clients	2.4GHz wireless: 32 5GHz wireless: 32
Router Features	
WAN	Shares data and Internet access with users, supporting the following Internet accesses: ν Dynamic IP

Hardware Specifications	
	ν Static IP ν PPPoE
LAN	Built-in DHCP server supporting static IP address distribution Supports IP MAC binding
Firewall	NAT firewall, SPI firewall Built-in NAT server which supports port forwarding and DMZ Built-in firewall with URL filtering, and MAC address filtering
System Management	Web-based (HTTP) management interface Telnet server Supports UPnP, DDNS SNTP synchronization System log TR069
Standards Conformance	
IEEE Standards	IEEE 802.11ac/n/a 5 GHz IEEE 802.11n/b/g 2.4 GHz
Modulation Type	802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
Other Protocols and Standards	TCP/IP, DHCP, NAT, PPPoE, NTP
Regulatory	CE, RoHS
Environment	
Temperature	Operating: 0 ~ 40 degrees C Storage: -40 ~ 70 degrees C
Humidity	Operating: 10 ~ 90% (non-condensing) Storage: 5 ~ 95% (non-condensing)