ZYXEL

MoCA 2.0 Ethernet Adapter
HLA4205

AC2200 Gigabit Ethernet MoCA Gateway
EMG6765

Hybrid MU-MIMO AC1300 MoCA Extender
WAP7205

Introduction of MoCA

Zyxel's new line of MoCA 2.0 bonding solutions are designed to transform a household's existing coax wiring to extend home networking further and more reliably with MoCA technology. Most households have coaxial cabling, by utilizing Zyxel's MoCA 2.0 bonded solutions with the household's coax outlets, opens up new opportunities for extending high speed networking with gigabit performance for IPTV, media streaming, gaming consoles, and home networking applications.

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EMG6765-Q10A
AC2200 Gigabit Ethernet MoCA Gateway

The Zyxel EMG6765-Q10A is an AC2200 Gigabit Ethernet MoCA Gateway with MoCA 2.0 features that works as a wired backbone for reliable WiFi extensions. The EMG6765-Q10A enables concurrent data transfer rates of 450 Mbps* at 2.4 GHz and 1733 Mbps* at 5 GHz for users to enjoy higher speeds across greater distances throughout the entire home for maximum wireless coverage. The device also features TR-069 standard management specifications for service providers to manage and configure client devices remotely without the need for any end-user intervention.

Benefits

High power for ultimate coverage
The Zyxel EMG6765-Q10A optimizes the power of home networks and ensures its coverage reaches every corner in the house. High-power amplifiers and high-gain antennas for the maximum WiFi coverage bring ultimate range and performance that users expect from their networked devices.

Speeds of up to 450 Mbps* at 2.4 GHz and 1733 Mbps* at 5 GHz

True dual-network design for optimized HD media and excellent HD media experience for mobile devices and desktops

MoCA support as the Gigabit-grade backbone for whole-home networking coverage

Auto provisioning and remote management through TR-069

802.1q, port-based VLAN and DHCP options support triple-play services

2 USB 3.0 Host ports deliver Samba File Service and DLNA media streaming from external USB disks or hard drives

WPS button for easy setup
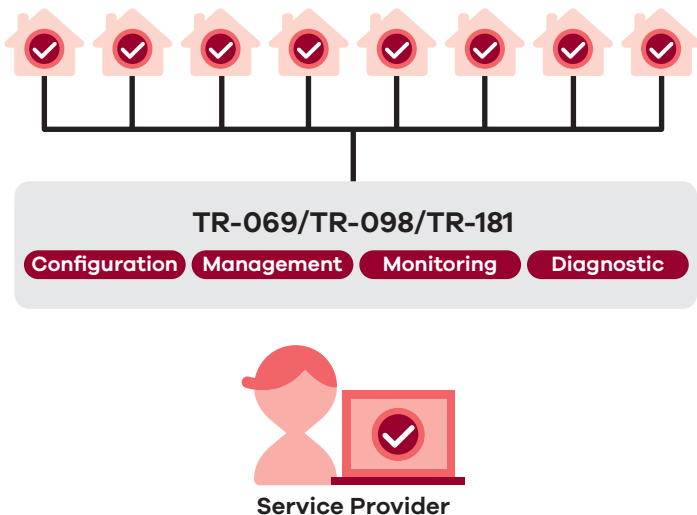
Datasheet EMG6765-Q10A

MoCA 2.0 bonded Gigabit speed

The Zyxel EMG6765-Q10A with MoCA 2.0 has been designed as a wired backbone for reliable WiFi extensions. MoCA 2.0 Bonded is the preferred solution for extending wireless coverage in multilevel homes.
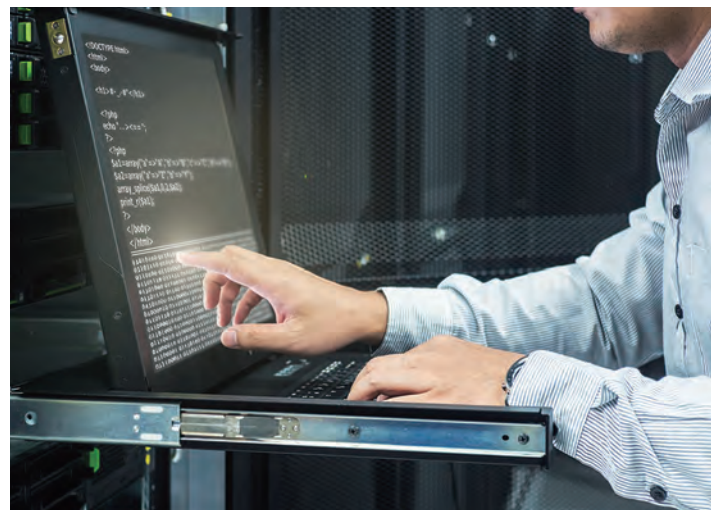
802.1q, port-based VLAN and DHCP options support triple-play services

The built-in VLAN and DHCP features of the Zyxel EMG6765-Q10A enable service providers to deploy multimedia services based on triple-play offerings for better network efficiency and productivity to meet the need of residential users.

Auto provisioning and remote management through TR-069/TR-098/TR-181

The Zyxel EMG6765-Q10A incorporates the TR-069 standard management specifications for service providers to remotely manage and configure devices without any end-user intervention. The feature offers a true "plug-and-play" experience while reducing deployment complexity to help saving operating and maintenance costs for service providers.

TR-069/TR-098/TR-181
Configuration | Management | Monitoring | Diagnostic

Service Provider

Easy administration for two-level configuration

The Zyxel EMG6765-Q10A provides a two-level administration design, so service providers can use two different privilege levels to complete critical device configurations. Service providers can manage and configure devices with full privilege and parameters, while end users are only granted with partial administration rights for basic, user-friendly configuration options such as wireless scheduling and SSID setting.
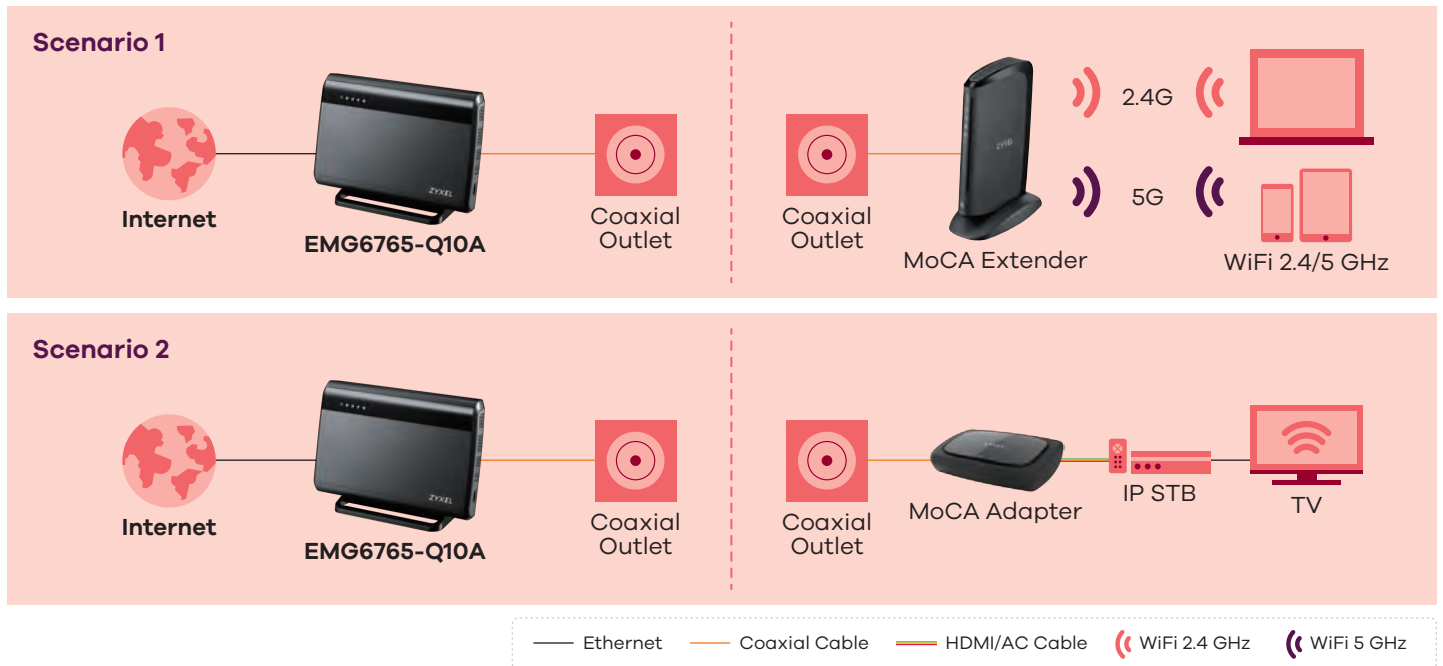
Optimized concurrent dual-band wireless for different applications

The Zyxel EMG6765-Q10A AC2200 Gigabit Ethernet MoCA Gateway features 802.11ac technology to provide the ultimate solution for both speed and coverage performance. With 802.11ac wireless data rates of up to 1733 Mbps*, the EMG6765-Q10A provides stable, reliable wireless connections for high-speed data and multimedia applications. The 802.11ac technology empowered the device to eliminate dead zones and to extend coverage while retaining backward compatibility with any WiFi certified device. Users can browse the Web on the 2.4 GHz band while watching HD video or play online games over the 5 GHz band smoothly while others at home are browsing the Web or checking emails.
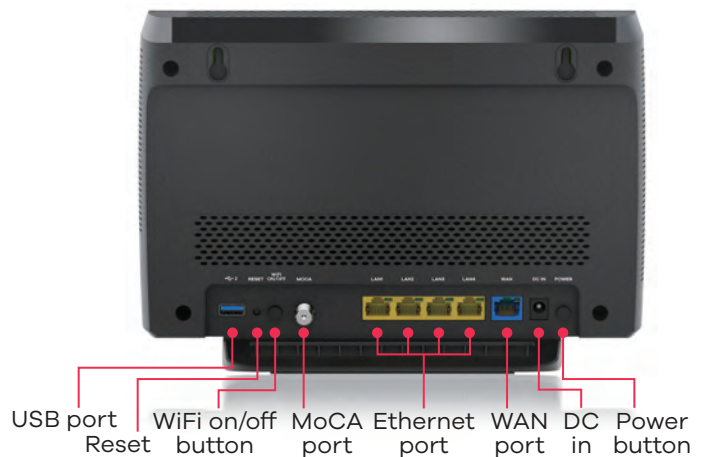
Application Diagram

Scenario 1

Internet — EMG6765-Q10A — Coaxial Outlet

Coaxial Outlet — MoCA Extender — 2.4G / 5G — WiFi 2.4/5 GHz

Scenario 2

Internet — EMG6765-Q10A — Coaxial Outlet

Coaxial Outlet — MoCA Adapter — IP STB — TV

—— Ethernet   —— Coaxial Cable   —— HDMI/AC Cable   ((WiFi 2.4 GHz   ((WiFi 5 GHz

Front Panel

LED indicators

ZYXEL

Rear Panel

USB port / Reset / WiFi on/off button / MoCA port / Ethernet port / WAN port / DC in / Power button

Specifications

System Specifications

Wireless Standard
- 802.11 b/g/n 2.4 GHz
- 802.11 a/n/ac 5 GHz

Wireless Transfer Rates
- Transmit:
    - 450 Mbps* for 2.4 GHz
    - 1733 Mbps* for 5 GHz
- Receive:
    - 450 Mbps* for 2.4 GHz
    - 1733 Mbps* for 5 GHz

MoCA Transfer Rate and Band
- PHY data rate:
    - 700 Mbps (baseline)
    - 1400 Mbps (bonded)
    - Backward compatible with MoCA 2.0/1.1/1.0
- Frequency range:
    - 1350 to 1675 MHz (D-high SKU)
    - 1125 to 1675 MHz (Full-D SKU)

Wireless Security
- WPA2, WPA2-PSK

WLAN Features
- Auto channel selection
- WiFi Multimedia (WMM)
- Wireless scheduling
- Wireless output power management
- Multiple SSID up to 4
- WiFi Protected Setup (WPS)
- Intra-BSS traffic block
- MAC address filtering

Firewall
- Stateful Packet Inspection (SPI)
- Denial-of-Service (DoS) attack prevention
- ICMP blocking

Routing
- IPv4/IPv6
- NAT
- Port forwarding
- WAN connection type: DHCP, PPPoE
- DHCP option 60/121/125
- DHCP server on LAN
- IGMP v1/v2
- IGMP proxy
- Dynamic DNS

VPN Pass-through
- PPTP
- L2TP
- IPSec

VLAN
- 802.1q tag/tag based VLAN
- VLAN to ETH port mapping
- Bridged/routed VLAN support

Management
- Bandwidth management QoS
- Web GUI (HTTP/HTTPS)
- TR-069/TR-098/TR-181
- SNMP v1/v2c & MIB II
- Firmware upgrade through GUI/TR-069
- 2-tier level access and administration
- Customized factory default

Other
- Content filter
- Parental control
- UPnP
- USB media sharing

Hardware Specifications
- WAN:
    - One 10/100/1000 Mbps Ethernet RJ-45 port with auto MDI/MDIX support
- LAN:
    - Four 10/100/1000 Mbps Ethernet RJ-45 ports with auto MDI/MDIX support
- LED indicators:
    - Power
    - Internet
    - WLAN for 2.4 GHz/WPS
    - WLAN for 5 GHz/WPS
    - MoCA
    - WAN (on RJ-45)
    - LAN 1-4 (on RJ-45)
- Internal antennas
- Button:
    - Power On/Off
    - Wireless On/Off
    - WPS
    - Reset
- Power: 12V DC, 3A
- Power consumption: 33 Watts max.

Physical Specifications
- Item dimensions (WxDxH): 260.4 x 168.6 x 43.5 mm (10.25" x 6.64" x 1.71")
- Item weight: 688 g (1.52 lb.)
- Packing dimensions (WxDxH): 321 x 202 x 106 mm (12.64" x 7.95" x 4.17")
- Packing weight: 1218 g (2.69 lb.)

Environmental Specifications

Operating Environment
- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% (Non-condensing)

Storage Environment
- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% (Non-condensing)

Certification
- EMC: FCC, IC

Package Contents
- Wireless router
- Power adapter
- Ethernet cable
- Quick start guide

* The maximum wireless data transfer rate is derived from IEEE Standard 802.11 specifications. Actual data transfer rate will vary from network environment including: distance, network traffic, building site materials/construction, interference from other wireless devices, and other adverse conditions.

For more product information, visit us on the web at www.zyxel.com

Datasheet EMG6765-Q10A

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WAP7205

Hybrid MU-MIMO AC1300 MoCA Extender

The Zyxel WAP7205 is a Hybrid MU-MIMO AC1300 MoCA Extender capable of concurrent data transfer rates of 400 Mbps* for 2.4 GHz and 867 Mbps* for 5 GHz for users to enjoy high-speed Internet via the existing reliable wires as well as to diminish dead zones effortlessly.

Benefits

MoCA 2.0 bonded Giga-grade for quality services in any room

The Zyxel WAP7205 is a Hybrid MU-MIMO AC1300 MoCA Extender with MoCA 2.0 bonded designed as a wired backbone for reliable Wi-Fi extension. MoCA 2.0 Bonded is the most reliable solution for extending wireless coverage in multilevel homes to deliver video streaming and online gaming services with guaranteed quality.

Speeds of up to 400 Mbps* at 2.4 GHz and 867 Mbps* at 5 GHz

Blazing-fast 802.11ac Wave 2 WiFi speeds at home

MoCA 2.0 bonded with speeds of up to 1.4 Gbps over coax wiring already in your home

WPS button for easy setup

Easy administration management for two-level configuration

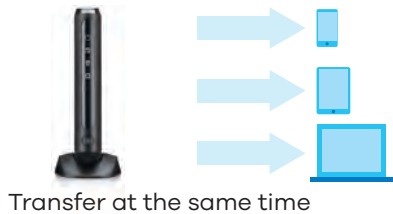Auto provisioning and remote management via TR-069

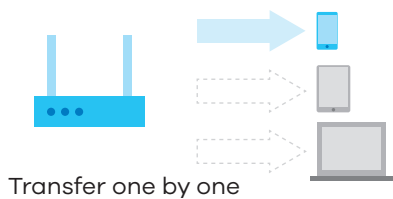Dual images for reliable system recovery

Optimize existing network with MU-MIMO Dual-Band 802.11ac

Even though there's no wireless router to support high-speed 802.11ac, you can still enhance network performance with the Zyxel WAP7205 802.11ac Wave 2 to deliver wireless speeds up to 867 Mbps. The total concurrent throughput can be as high as 1300 Mbps to let you enjoy smooth internet services and access online entertainment anywhere at home.
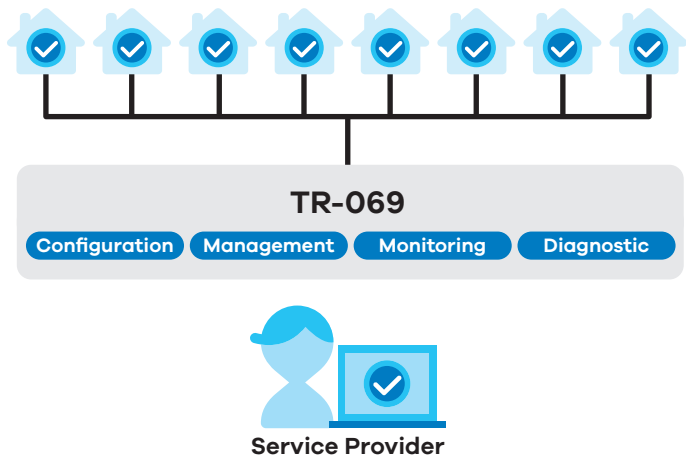
MU-MIMO

Transfer at the same time

SU-MIMO

Transfer one by one

Dual images for reliable system recovery

With dual images, you can perform reliable system recovery and easily maintain devices in case accidental issues occur and save cost by eliminating the need to call back the devices.
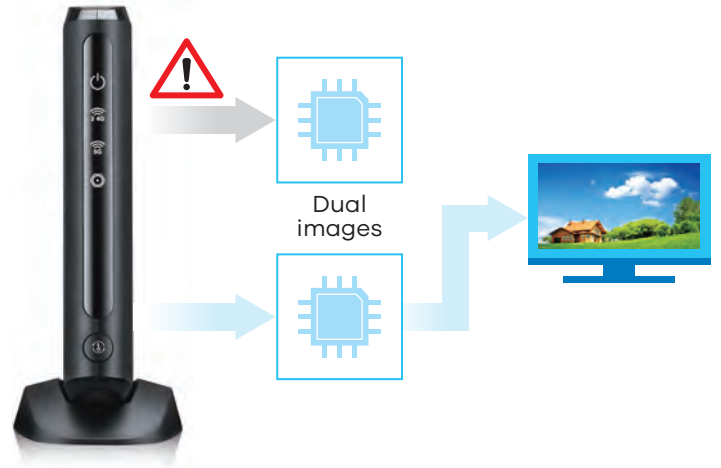
Dual images

Auto provisioning and remote management via TR-069

The Zyxel WAP7205 is equipped with the TR-069 standard management specifications for service providers to remotely manage and configure devices without any end-user intervention. The feature offers a true "plug-and-play" experience while reducing deployment complexity to help saving OPEX for service providers.

TR-069

Configuration   Management   Monitoring   Diagnostic

Service Provider

Easy, safe administration management with two-level configuration

The Zyxel WAP7205 provides two-level administration management that allows you to manage and configure devices with full privilege and parameters as end-users are only granted with partial administration rights for basic, user-friendly configuration options such as SSID setting with a responsive UI.

Specifications

System Specifications

MoCA Standard
- Support MoCA 2.0 bonded/2.0/1.1/1.0 version
- Modulations: 8/16/32/64/128/256/512/1024 QAM, BPSK, QPSK
- MoCA extended D-band operation: 1350 - 1675 MHz (D-high)
- D-high frequency with compatibility with future DOSIS 3.1

Wireless Standards
- Wireless IEEE 802.11 b/g/n 2.4 GHz
- Wireless IEEE 802.11 a/n/ac 5 GHz

Performance
- 400 Mbps* at 2.4 GHz
- 867 Mbps* at 5 GHz

Wireless Security
- WPA2-PSK, WPA2

Wireless Features
- Wi-Fi Protected Setup (WPS)
- Wi-Fi Multimedia (WMM)
- Auto channel selection
- Wireless output power management
- Multiple SSIDs up to 4
- MAC address filtering

MoCA Features
- Network search
- MoCA network security

Management
- Web GUI (HTTP/HTTPS)
- TR-069
- SNMP V1/V2
- Remote Firmware upgrade through GUI/TR-069
- 2-tier access and administration
- Customized factory default
- System diagnostics
- Telnet/SSH

Hardware Specifications

Interfaces
- Two 10/100/1000 Ethernet RJ-45 ports with auto MDI/MDIX support
- MoCA F connector

LED Indicators
- Power
- WiFi 2.4 GHz/WPS
- WiFi 5 GHz/WPS
- MoCA
- LAN LED on Ethernet ports

Buttons
- Power on/off
- WPS
- Reset

Power Consumption
- 12V DC, 1.5A
- 18 Watt max

Physical Specifications
- Item dimensions (WxDxH):
  37 x 134 x 218 mm
  (1.46" x 5.28" x 8.58")
- Item weight: 420 g (0.92 lb.)
- Packing dimensions (WxDxH):
  321 x 187 x 101 mm
  (12.63" x 7.36" x 3.97")
- Packing weight: 560 g (1.23 lb.)

Environmental Specifications

Operating Environment
- Temperature:
  0°C to 40°C (32°F to 104°F)
- Humidity:
  10% to 90% (Non-condensing)

Storage Environment
- Temperature:
  -30°C to 70°C (-22°F to 158°F)
- Humidity:
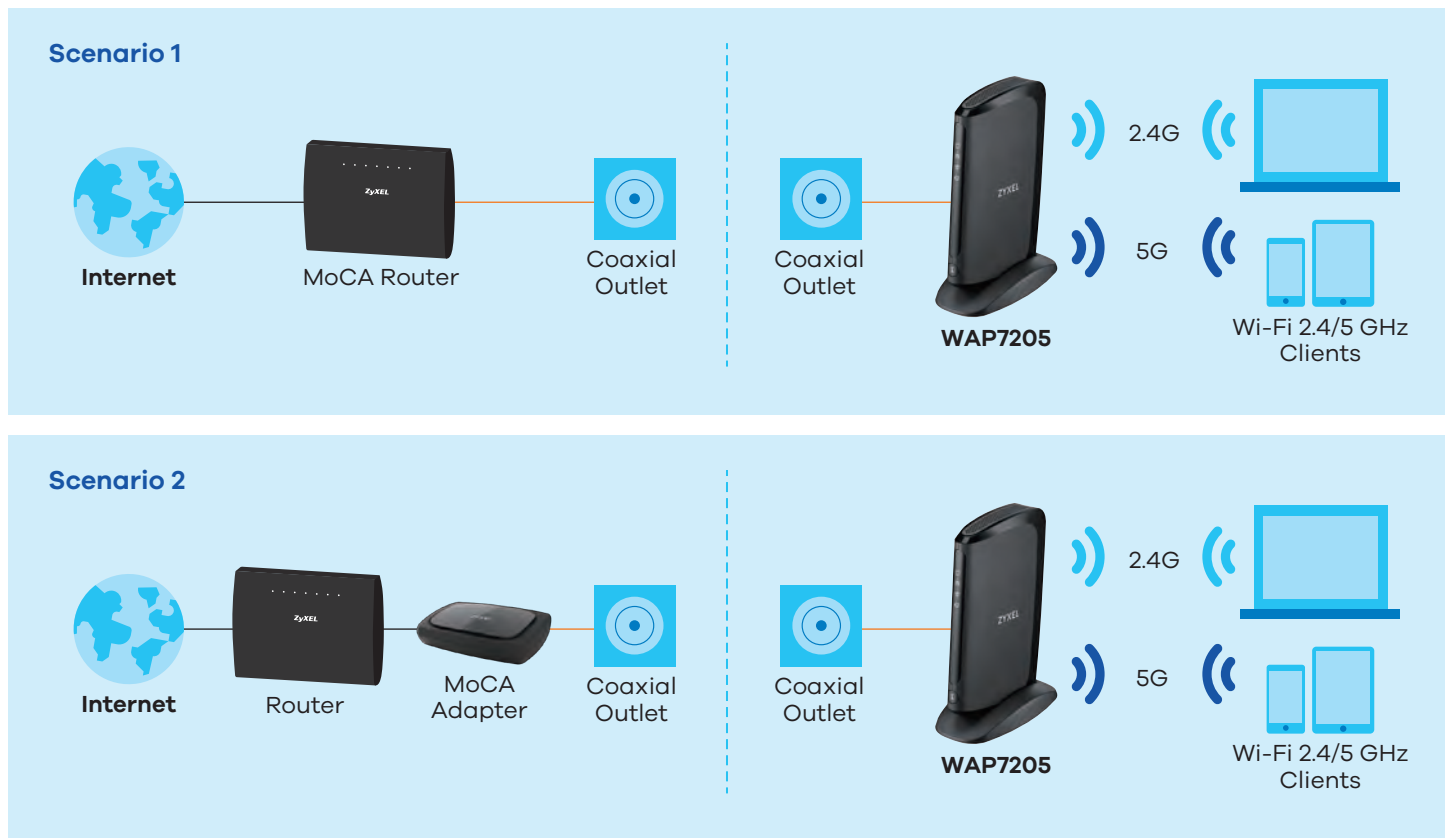 10% to 95% (Non-condensing)

Certification
- IC
- FCC

Package Contents
- Wireless extender
- Power adapter
- Ethernet cable
- Quick start guide

* The maximum wireless data transfer rate is derived from IEEE Standard 802.11 specifications. Actual data transfer rate will vary from network environment including: distance, network traffic, building site materials/construction, interference from other wireless devices, and other adverse conditions.
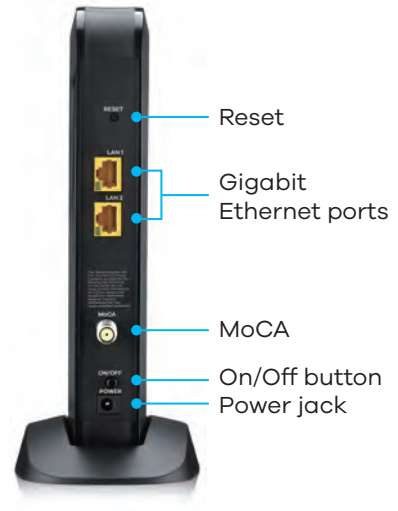
Application Diagram

Scenario 1

Internet — MoCA Router — Coaxial Outlet ⋯ Coaxial Outlet — WAP7205

- 2.4G → Wi-Fi 2.4/5 GHz Clients
- 5G → Wi-Fi 2.4/5 GHz Clients

Scenario 2

Internet — Router — MoCA Adapter — Coaxial Outlet ⋯ Coaxial Outlet — WAP7205

- 2.4G → Wi-Fi 2.4/5 GHz Clients
- 5G → Wi-Fi 2.4/5 GHz Clients

—— Ethernet —— Coaxial Cable))) Wi-Fi 2.4 GHz))) Wi-Fi 5 GHz

Front Panel

- LED indicators
- WPS button

Rear Panel

- Reset
- Gigabit Ethernet ports
- MoCA
- On/Off button
- Power jack

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HLA4205
MoCA 2.0 Ethernet Adapter

The Zyxel HLA4205 MoCA 2.0 Ethernet Adapter is a coax home network adapter that turns the home coax cable into a 1.4 Gbps network backbone for every family member to experience high-speed network connectivity.

Benefits

Transform coax outlets to Gigabit Ethernet ports for home network extension

The Zyxel HLA4205 MoCA 2.0 Ethernet Adapter helps users build up a complete network environment with the existing coaxial infrastructure. The HLA4205 supplements the existing WiFi network with no extra cables required to extend the Internet service from one room to another.
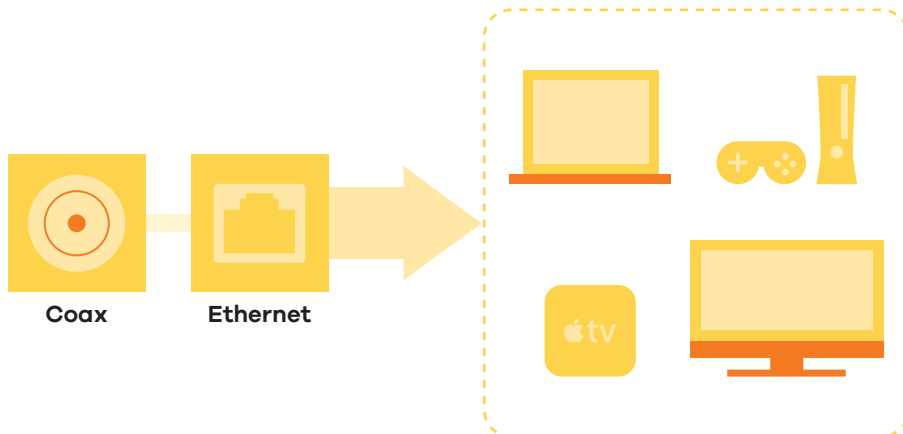
MoCA 2.0 Bonded supports for wired networks of up to 1.4 Gbps*
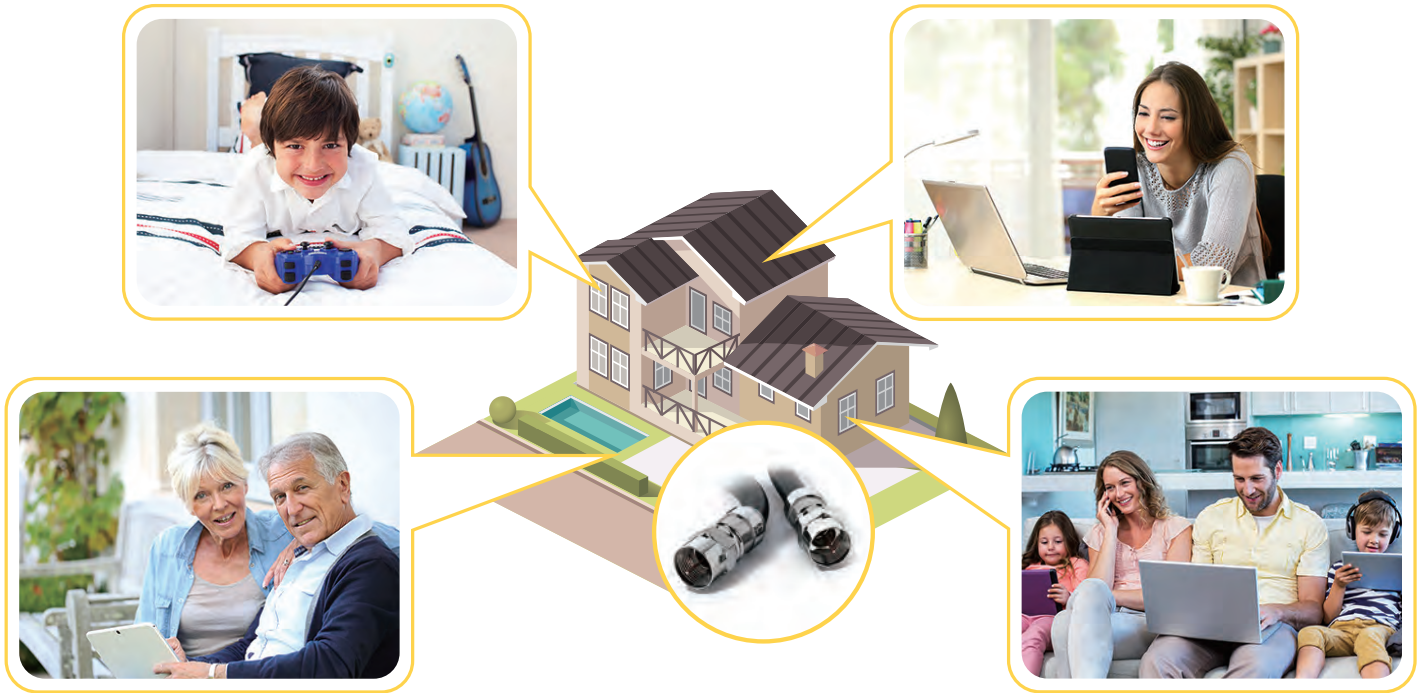
Blazing-fast Gigabit for multi-UHD

Easy installation and use

Coax   **Ethernet**

Stable, blazing-fast Gigabit data transmission

The Zyxel HLA4205 adapter is designed for reliable, high-performance media network connectivity. With the latest MoCA 2.0 Bonded technology, it is easy to build a wired network with speeds of over 1 Gbps to fulfill the demands for multi-Ultra HD streaming and online gaming at the same time.
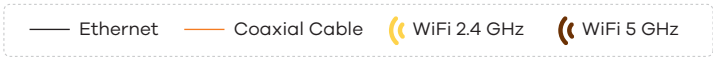
Latest MoCA 2.0 Bonded technology

The Zyxel HLA4205 provides an ultra-fast connection with speeds up to 1.4 Gbps* taking advantage of Bonded MoCA 2.0, the latest MoCA technology. It is backward interoperable with MoCA 1.1 and MoCA 1.0.

Application Diagram

Scenario 1

Internet — Home Router — **HLA4205** — Coaxial Outlet ⋮ Coaxial Outlet — **HLA4205** — Home PC or Set Top Box

Scenario 2

Internet — Home Router — **HLA4205** — Coaxial Outlet ⋮ Coaxial Outlet — **WAP7205** — 2.4G / 5G — WiFi 2.4/5 GHz Clients

—— Ethernet   —— Coaxial Cable   ((WiFi 2.4 GHz   ((WiFi 5 GHz

Specifications

System Specifications

Network Standard
- MoCA 2.0 Bonded
- Backward interoperable with MoCA 2.0/1.1/1.0
- MoCA nodes: up to 16 devices
- IEEE 802.3 complaint 10/100/1000 Mbps
- IEEE802.3 az Energy Efficient Ethernet

Hardware Specifications

- LAN: One Gigabit Ethernet RJ-45 port with auto MDI/MDIX support
- Coaxial port: Two F-type coaxial connectors
- LED indicators:
  - Power
  - Ethernet
  - MoCA
- Power consumption:
  - 5V DC, 1A
  - 5 watt max

Physical Specifications

- Item dimensions (WxDxH): 121 x 79 x 28 mm (4.76" x 3.11" x 1.1")
- Item weight: 126g (0.27 lb.)
- Packing dimension (WxDxH): 146 x 120 x 83 mm (5.74" x 4.72" x 3.26")
- Packing weight: 313g (0.69 lb.)

Environmental Specifications

Operating Environment
- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% (Non-condensing)

Storage Environment
- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% (Non-condensing)

Certification
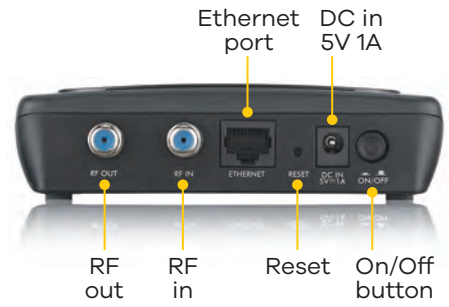
- FCC, ICES

Package Contents

- HLA4205
- Power adapter
- Ethernet cable
- Quick start guide

* The maximum data transfer rates of up to 1400 Mbps over coaxial in simultaneous transmission is derived from the MoCA 2.0 bonded specifications. Actual data transfer rates may vary from network conditions including cable length, network traffics, diplexer attenuation, and interference from other coax devices or other adverse factors.

Front Panel

LED indicators

Rear Panel

Ethernet port

DC in 5V 1A

RF out

RF in

Reset

On/Off button

09/17

Datasheet HLA4205