



OWR3030AXG/U3

AX3000 Mesh Wi-Fi 6 Gigabit Router with 3G/LTE Support

2.4/5GHz, 1000Base-T WAN, 3x1000Base-T LAN, 1xUSB 3.0, wall mounting



OWR3030AXG/U3 is a dual-band AX3000 Mesh Wi-Fi 6 gigabit router with 1 1000Mbps WAN port, 3 1000Mbps LAN ports, and 1 USB 3.0 port.

The ORIGO OWR3030AXG/U3 wireless router is designed to set up home networks with uninterrupted internet access with plans of up to 1000Mbps, high-speed dual-band Wi-Fi 6, support for Mesh Wi-Fi, IPTV in Ultra HD quality, and parental control functions. The multifunctional USB 3.0 port allows you to connect 3G/LTE modems for backup internet access, USB storage, and printers.

Support for Wi-Fi 6 ensures high wireless network performance and stable operation even with a large number of simultaneous connections. Wi-Fi operates in two frequency bands: with speeds of up to 2402Mbps in the 5GHz band and up to 574Mbps in the 2.4GHz band. OFDMA and MU-MIMO technologies allow the router to efficiently distribute the load among client devices, reduce latency, and improve overall wireless network performance.

Support for Mesh Wi-Fi is designed to quickly connect several ORIGO¹ routers into one network and provide seamless Wi-Fi coverage in country houses, multi-room apartments, and other premises with large area and complicated layout.

¹ Automatic configuration and cooperation are guaranteed for the following models: OWR3030AXM/U2/A1, OWR3030AXG/U3/A3, OWR1830AXG/A2, and OWR1240ACG/A1.



The Multi-WAN feature allows to configure multiple WAN ports and connect to different internet service providers. If the primary connection fails, the router will automatically switch to the backup one.

The router is fully adapted to work with IPTV, supports the creation of a guest Wi-Fi network with WPA3 protection and parental control functionality with using a URL filter and the SkyDNS content filtering service.

Key Features

- For internet plans with speeds up to 1000Mbps
- AX3000 Wi-Fi 6 with speeds of up to 2402Mbps in the 5GHz band and up to 574Mbps in the 2.4GHz band
- Dual-core 1.3MHz processor, 512MB RAM, 128MB Flash
- 1 Gigabit WAN port, 3 Gigabit LAN ports
- 6 omnidirectional 5dBi antennas for extensive Wi-Fi coverage
- Mesh Wi-Fi support to extend wireless coverage
- MU-MIMO and OFDMA for simultaneous operation without lags or interruptions
- Airtime Fairness for improving overall Wi-Fi performance
- Multi-WAN for internet connection backup
- USB 3.0 port for connecting 3G/LTE modem/storage/printer
- Smooth IPTV streaming in HD and Ultra HD quality
- Parental control functions
- Wall mounting available

Specification

Hardware

Processor	• MT7981BA (1.3GHz, dual core)
RAM	• 512MB, DDR3
Flash	• 128MB, SPI NAND
Ports	• 1 10/100/1000BASE-T WAN port • 3 10/100/1000BASE-T LAN ports • 1 USB 3.0 port



LEDs	• POWER • 2.4GHZ • 5GHZ • LAN 1-3 • STATUS • WAN
Buttons	• WiFi / WPS button to connect mesh network devices, set up wireless connection, and enable/disable wireless network • RESET button to restore factory default settings • ON/OFF button to power on/power off
Antennas	• 6 external non-detachable omnidirectional 5dBi antennas
MIMO	• 2.4GHz: 2x2:2, MU-MIMO • 5GHz: 3x3:2, MU-MIMO
Power Connector	• Power input connector (DC)
Mounting	• Desktop • Wall

Wi-Fi Parameters

Standards	• IEEE 802.11ax • IEEE 802.11ac Wave 2 • IEEE 802.11a/b/g/n • IEEE 802.11k/v
Frequency Range	• 2400 ~ 2483.5MHz • 5150 ~ 5350MHz • 5650 ~ 5850MHz
Wireless Connection Rate	• 2.4GHz - 11ax: up to 574Mbps - 11n: up to 300Mbps - 11g: up to 54Mbps - 11b: up to 11Mbps • 5GHz - 11ax: up to 2402Mbps - 11ac: up to 867Mbps - 11n: up to 300Mbps - 11a: up to 54Mbps



Wireless Connection Security	• WPA/WPA2 (Personal/Enterprise) • WPA3 (Personal) • MAC filter • WPS (PBC/PIN)
Advanced Functions	• Support of Mesh Wi-Fi • WMM (Wi-Fi QoS) • Information on connected Wi-Fi clients • Advanced settings • Guest Wi-Fi / support of MBSSID • Periodic scan of channels, automatic switch to least loaded channel • Support of 2.4GHz/5GHz TX Beamforming • Autonegotiation of channel bandwidth in accordance with environment conditions (20/40 Coexistence) • Support of STBC • CoovaChilli authentication portal • Support of OFDMA technology • Support of TWT technology • Support of Airtime Fairness
Transmitter Output Power	• Less than 20dBm (100mW)
Modulation Schemes	• 802.11a: BPSK, QPSK, 16QAM, 64QAM • 802.11b: DSSS, DBPSK, DQPSK, CCK • 802.11g: BPSK, QPSK, 16QAM, 64QAM • 802.11n: BPSK, QPSK, 16QAM, 64QAM • 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM • 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM



Software

Operating Modes	• Router • Access point • Wi-Fi client • Wi-Fi repeater • WISP repeater
WAN Connection Types	• Mobile internet (via supported USB modem) • PPPoE • IPv6 PPPoE • PPPoE Dual Stack • Static IPv4 / Dynamic IPv4 • Static IPv6 / Dynamic IPv6 • PPPoE + Static IP (PPPoE Dual Access) • PPPoE + Dynamic IP (PPPoE Dual Access) • PPTP/L2TP + Static IP • PPTP/L2TP + Dynamic IP • L2TP Dual Stack • IPv4 over IPv6 in DSLite mode • 6in4 • 6to4 • 6rd

Network Functions	• DHCP server/relay • Advanced configuration of built-in DHCP server • Stateful/Stateless mode for IPv6 address assignment, IPv6 prefix delegation • Automatic obtainment of LAN IP address (for access point/repeater/client modes) • DNS relay • Dynamic DNS • Static IPv4/IPv6 routing • RIP • IGMP/MLD Proxy • Support of UPnP • Support of VLAN • WAN ping respond • Support of SIP ALG • Support of RTSP • WAN failover • LAN/WAN conversion • Multi-WAN support • Autonegotiation of speed, duplex mode, and flow control / Manual speed and duplex mode setup for each Ethernet port • Built-in UDPXY application • XUPNPD plug-in • Equal load distribution while using several WAN connections (traffic balancing) • Support of VRRP • Port mirroring • Wake-on-LAN support
Firewall	• Network Address Translation (NAT) • Stateful Packet Inspection (SPI) • IPv4/IPv6 filter • MAC filter • URL filter • Ad blocking function • DMZ • Virtual servers • Built-in SkyDNS web content filtering service

VPN	• IPsec/PPTP/L2TP/PPPoE pass-through • PPTP/L2TP servers • PPTP/L2TP tunnels • L2TP over IPsec client • GRE/EoGRE/IPIP tunnels • IPsec tunnels - Transport/Tunnel mode - IKEv1/IKEv2 support - DES encryption - NAT Traversal - Support of DPD (Keep-alive for VPN tunnels)
USB Modem	• USB modem - Auto connection to available type of supported network (4G/3G/2G) - Auto configuration of connection upon plugging in USB modem - Enabling/disabling PIN code check, changing PIN code² - Sending/receiving/reading/removing SMS messages² - Support of USSD requests² • USB storage - File browser - Print server - Access to storage via accounts - Built-in Samba server - Built-in FTP server supporting TLS - Built-in DLNA server - Built-in Transmission torrent client; uploading/downloading files from/to USB storage

² For some models of USB modems.

Management and Monitoring	• Local and remote access to settings through SSH/TELNET/WEB (HTTP/HTTPS) • Web-based interface for configuration and management • Notification on connection problems and auto redirect to settings • Firmware update via web-based interface • Automatic notification on new firmware version • Saving/restoring configuration to/from file • Support of logging to remote host/connected USB storage • Automatic synchronization of system time with NTP server and manual time/date setup • Ping utility • Traceroute utility • TR-069 client • SNMP agent • Schedules for rules and settings of firewall, automatic reboot and saving a configuration backup to a connected USB storage, and enabling/disabling wireless network and Wi-Fi filter • Automatic upload of configuration file from server of internet service provider (Auto Provision) • Configuration of action for hardware buttons
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Physical Parameters

Device Dimensions (L x W x H)	• 228 x 150 x 29 mm
Device Weight	• 420 g
Package Dimensions	• 28 x 25 x 6 cm
Gross Weight	• 0.74 kg

Operating Conditions

Power	• Output: 12V DC, 1.5A • Power adapter cable length: 1.5 m
Max Power Consumption	• 19 W
Temperature	• Operating: from 0 to 40 °C • Storage: from -10 to 70 °C
Humidity	• Operating: from 10% to 90% • Storage: from 5% to 90%



Package Contents

Package Contents	• Router OWR3030AXG/U3 • Power adapter (1.5 m cable length) • Ethernet cable (1.4 m) • Quick Installation Guide
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Supported USB Modems³

GSM	• Alcatel X500 • D-Link DWM-152C1 • D-Link DWM-156A6 • D-Link DWM-156A7 • D-Link DWM 156A8 • D-Link DWM-156C1 • D-Link DWM-157B1 • D-Link DWM-158D1 • D-Link DWR-710 • Huawei E150 • Huawei E1550 • Huawei E156G • Huawei E160G • Huawei E169G • Huawei E171 • Huawei E220 • Huawei E3531 • ZTE MF112 • ZTE MF192 • ZTE MF626 • ZTE MF627 • ZTE MF652 • ZTE MF667 • ZTE MF668 • ZTE MF752
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³ The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.



LTE	• Alcatel IK40V • Brovi E3372-325 • D-Link DWM-222 • D-Link DWR-910 (revision D1) • Huawei E3131 • Huawei E3272 • Huawei E3351 • Huawei E3372s • Huawei E3372h-153 • Huawei E3372h-320 • Huawei E367 • Huawei E392 • ZTE MF823 • ZTE MF823D • ZTE MF827 • ZTE MF833T • ZTE MF833V
Smartphones in USB Tethering Mode	• Some models of smartphones (Android OS)
Order Info	
OWR3030AXG/U3	• AX3000 Wi-Fi 6 Router, 1000Base-T WAN, 3x1000Base-T LAN, 1xUSB 3.0