DUAL-MODE XPON PoF WI-FI 6 AP (GPON / EPON)

uAPAX30H

1× XPON (PoF) · 1× GE · Wi-Fi 6 AX3000

Ceiling-mount Wi-Fi 6 AP powered over the fiber drop.



AX3000	PoF	1× GE	160 MHz	256 clients
DUAL-BAND WI-FI 6, UP TO 3 GBPS	POWER OVER FIBER, 44–57 V DC	RJ45, AUTO-NEGOTIATION	CHANNEL BANDWIDTH	MAX. CONNECTED DEVICES

01 OVERVIEW

The UGRID uAPAX30H is a ceiling-mount Wi-Fi 6 access point with a dual-mode XPON (GPON / EPON) uplink and Power over Fiber (PoF). A single PoF optical-electrical composite cable from the PoF splitter carries both the optical signal and DC power to the unit, so no local outlet is needed at the ceiling, and power and optical transmission do not interfere with each other. Dual-band Wi-Fi 6 AX3000 with 160 MHz channels, MU-MIMO and OFDMA delivers wireless rates up to 3,000 Mbps over built-in antennas, alongside one Gigabit Ethernet port. IPv4/IPv6 dual stack, Layer 3 functions and OAM/OMCI and TR-069 management suit hotel lobbies, classrooms, conference rooms and restaurants.

Hospitality

Wi-Fi 6 coverage for hotel lobbies and restaurants from a low-profile ceiling unit.

Education

Wi-Fi 6 with MU-MIMO and OFDMA for classrooms, with up to 256 connected devices.

Enterprise

Ceiling-mount Wi-Fi 6 and a Gigabit port for conference rooms, powered over the fiber drop.

DEPLOYMENT SCENARIOS

Hotels · Restaurants · Classrooms · Conference rooms · Ceiling mount · Power over Fiber

02 KEY FEATURES

- **Dual-band Wi-Fi 6 AX3000**
  802.11a/n/ac/ax at 5 GHz and 802.11b/g/n/ax at 2.4 GHz, with 160 MHz channels, MU-MIMO and OFDMA for up to 256 connected devices.
- **Power over Fiber**
  Powered from the PoF splitter over the composite cable — no local outlet needed at the ceiling. A 12 V DC input is also provided.
- **Low-profile ceiling mount**
  195 × 195 × 35 mm and 400 g, with built-in Wi-Fi antennas for a clean ceiling installation.
- **IPv4 / IPv6 dual stack**
  DHCP, PPPoE and static IP, with static routing, NAT, DMZ, ALG, UPnP, virtual server and DDNS.
- **Centralized management**
  OAM / OMCI management with compatible OLT platforms, plus TR-069, Web and Telnet.
- **Security**
  WPA / WPA2 / WPA3 Personal, IP / MAC and URL filtering, anti-DoS, loop detection and parental control.

03 TYPICAL APPLICATION

The uAPAX30H is fed from a UGRID U8 / U5 OLT through an SP-POF PoF power splitter, which delivers the optical signal and DC power together over PoF composite cable to the ceiling. The AP then serves PCs over its Gigabit port and wireless clients over Wi-Fi 6.

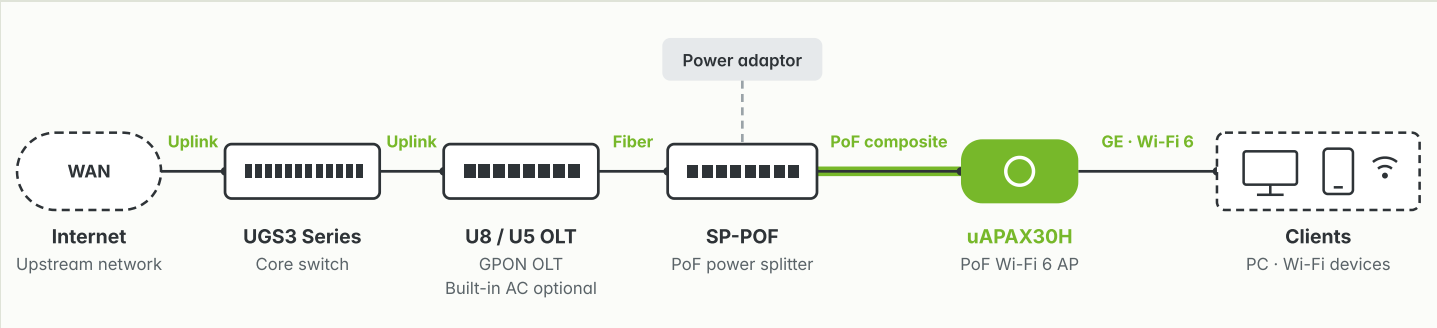


Figure 1 — UGRID GPON access with Power over Fiber (uAPAX30H highlighted). AC = access controller.

04 HARDWARE SPECIFICATIONS

PON INTERFACE

Port	1× XPON with PoF — GPON Class B+ / EPON PX20+
Connector	PoF optical-electrical composite port, single-mode
Wavelength	TX 1310 nm, RX 1490 nm
TX optical power	0 to +4 dBm
RX sensitivity	−27 dBm
Overload optical power	−8 dBm (GPON); −3 dBm (EPON)
Transmission distance	20 km

USER INTERFACES

Ethernet	1× GE RJ45, auto-negotiation
Button / indicators	Reset button; PON/LOS and LAN indicators

WI-FI

Standards	IEEE 802.11b/g/n/ax @ 2.4 GHz; IEEE 802.11a/n/ac/ax @ 5 GHz
Data rate	AX3000 — 574 Mbps @ 2.4 GHz + 2,402 Mbps @ 5 GHz
Channel bandwidth	Up to 160 MHz
MIMO	2.4 GHz 2×2; 5 GHz 2×2
Antennas	Internal; 5 GHz uses 3 antennas (2 for data, 1 for spatial calibration)
Max. connected devices	256

POWER

PoF power input	44–57 V DC via PoF optical-electrical composite cable
Local power input	12 V DC / 1.5 A, external AC-DC adapter (optional)
Power consumption	≤ 18 W

PHYSICAL & ENVIRONMENTAL

Dimensions (L × W × H)	195 × 195 × 35 mm
Net weight	400 g
Installation	Ceiling mount
Operating environment	−10 °C to +55 °C; 5%–95% RH, non-condensing
Storage environment	−40 °C to +70 °C; 5%–95% RH, non-condensing

05 SOFTWARE FEATURES

Management

- Web, Telnet, OAM / OMCI, TR-069
- OAM / OMCI management with compatible OLT platforms

Layer 2

- IEEE 802.1D and 802.1ad bridging
- IEEE 802.1Q VLAN

QoS

- 4 queues
- SP, WRR, 802.1p and DSCP

Multicast

- IGMP v1/v2/v3, IGMP snooping
- IGMP proxy
- MLD v1/v2 snooping
- MLD proxy

Layer 3 / Layer 4

- IPv4 / IPv6 dual stack
- DHCP / PPPoE / static IP
- Static route, NAT
- DMZ, ALG, UPnP
- Virtual server
- DNS client and DNS proxy
- DDNS

Security

- Local access control
- IP / MAC filtering, URL filtering
- Anti-DoS attack protection
- Loop detection
- Parental control

Wi-Fi

- Wi-Fi 6: 802.11a/n/ac/ax at 5 GHz and 802.11b/g/n/ax at 2.4 GHz
- WPA / WPA2 / WPA3 (Personal), WPS 2.0
- MU-MIMO and OFDMA
- Multiple SSIDs
- Hidden SSID
- Mesh

System

- NTP (Network Time Protocol)
- Scheduled device restart
- Ping and Traceroute diagnostics
- iPerf speed test
- WLAN packet capture

06 ORDERING INFORMATION

SELECTED CONFIGURATION

PART NO.	DESCRIPTION
uAPAX30H	Dual-mode XPON PoF Wi-Fi 6 ceiling AP, 1× XPON (PoF) + 1× GE + Wi-Fi 6 AX3000 dual-band

Optional accessory: 12 V DC / 1.5 A AC-DC power adapter for local power.

07 REVISION HISTORY

REVISION	DATE	DESCRIPTION
R01	2026-11-02	Initial release.

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