FiberHome

AN4121-BM
Wall Plate Optical AP

Flexible Access ●

Wired & wireless connectivity

Gigabit Wireless ●

Dual-band Wi-Fi 7 access

Easy Deployment ●

Power over fiber (PoF)

wall-mounting in a junction box (86 mm)

About the Device

The AN4121-BM is a wall plate Wi-Fi 7 ONU (also known as optical AP) developed by FiberHome. It features a symmetrical 2.5G GPON uplink port on the network side and a GE Ethernet port plus dual-band Wi-Fi 7 on the user side.

Featuring flexible deployment, the AN4121-BM supports two power supply modes (PoF and power adapter). It can be installed in a junction box (86 mm) and mounted on a wall—ideal for space-constrained indoor environments.

Highlights

High-Speed Access & Flexible Expansion

- Symmetrical 2.5G GPON port on the network side
- Wired and wireless connectivity on the user side

📋 Gigabit Wireless & Reliable Performance

- Dual-band Wi-Fi 7 (2.4G & 5G) , ensuring stable connectivity
- 2×2 MU-MIMO technology, enhancing data transmission efficiency

📋 Flexible Deployment & Easy Installation

- Wall mounting in a standard junction box (86 mm) for space saving
- Remote power supply through PoF, enabling flexible cabling without local power source

Application

The AN4121-BM can serve as an all-optical sub-gateway for government and enterprise networks. When paired with a primary gateway for government and enterprise use, it delivers wired and wireless network coverage for small and medium-sized enterprises (SMEs). This setup facilitates a comprehensive all-optical networking solution, providing corporate users with services such as wired / wireless Internet access and high-definition video streaming.

- Networking scenario: The AN4121-BM typically connects to a primary gateway, forming an all-optical solution tailored for small and medium-sized businesses alongside the primary gateway.
- Application features: The AN4121-BM provides a variety of interfaces, meeting comprehensive service needs such as wired access and Wi-Fi coverage.
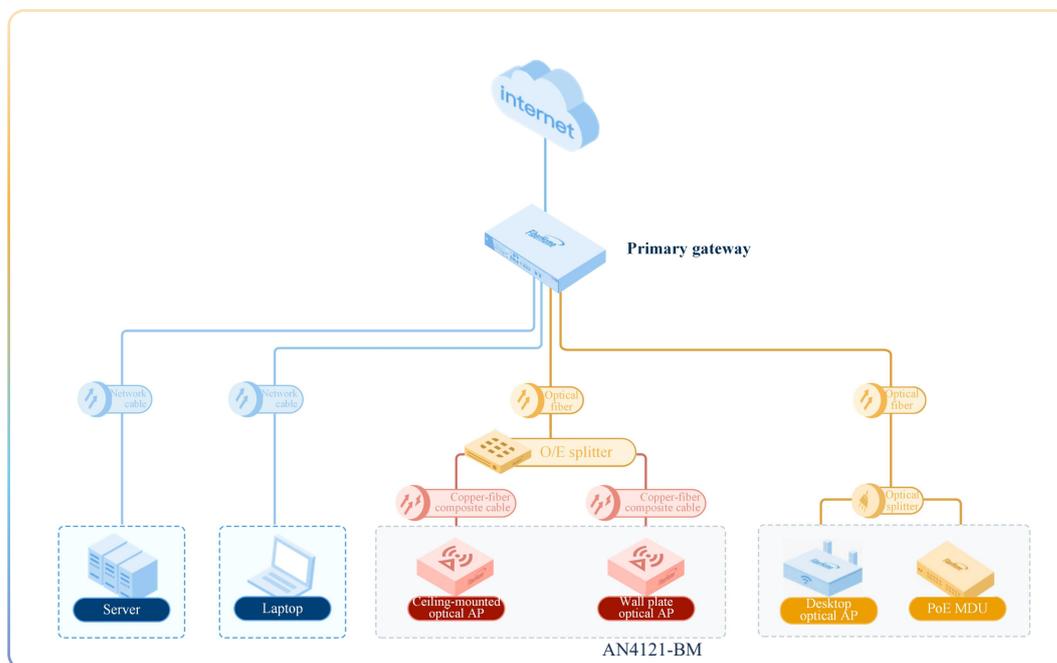
Specifications

Classification	Item	Specification
Overall specifications	Equipment dimensions	86mm×86mm×55mm （W×H×D）
	Overall power supply	• PoF: 56V / 0.26A • Power adapter: 12 V DC / 1.0 A
Environmental specifications	Operating temperature	-5°C to 40°C
	Operating humidity	5% to 95%RH (non-condensing)
	Altitude[Note1]	≤ 5000m
	Atmospheric pressure	70kPa to 106kPa
Network side interface	Configuration	Symmetric 2.5G GPON
	Port type	SC interface
	Port rate	Downstream: 2.488 Gbit/s; upstream: 2.488 Gbit/s
LAN port	Configuration	1 × GE
	Port type	RJ-45
	Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3bz, IEEE802.3an
Wi-Fi interface	Configuration	2.4GHz&5GHz Wi-Fi 7
	Standard	IEEE 802.11b/g/n(2.4G), IEEE 802.11ax/11be(2.4G), IEEE 802.11a/n/ac(5G), IEEE 802.11ax/11be(5G)

Note 1: When the altitude is above 1800 m, every 220 m increase in the altitude will result in 1°C decrease in the operating temperature.

功能特性

Smart O&M

Web UI management: allows login to the web management page to check device status.	Telnet management: allows telnet into the device through the primary gateway to check its status and other information
Collective management through a primary gateway	

Security

MAC / IP address filtering	IPv6 / IPv4 firewall
Protection against various network attacks (including ARP, ICMP and DoS attacks)	

QoS and ACL

ACL: Traffic is analyzed and processed according to ACL rules.	QoS with three scheduling modes: SP, WRR and SP+WRR
Queue mapping: Packets are mapped to different queues according to their 802.1p / DSCP priority.	Traffic rate control and priority remarking based on traffic classification rules
ONU-specific bandwidth control to guarantee services with high priority	Rate control on Ethernet ports
WAN rate control	

Wi-Fi

IEEE 802.11 b/g/n/ax/be (2.4G)	IEEE 802.11 a/n/ac/ax/be (5G)
OFDMA and 4096 QAM modulation	Automatic selection of channels
Security authentication through WPA, WPA2 and WPA3	Up to 32 user connections
20/40 MHz bandwidth mode for the 2.4G frequency band	20/40/80/160 MHz bandwidth mode for the 5G frequency band