

NEWBRIDGE AP722-WP

Hospitality Indoor Wi-Fi 7 (802.11be) Dual-Band Wall-Mount Access Point



2.4 GHz

5 GHz



A Wi-Fi 7 in-room access point with a built-in wired switch – dual-band coverage plus a 2.5G PoE+ uplink, PoE-out, LAN ports, RJ45 pass-through and a USB charger in one wall unit.

3,570

MBPS · DUAL-BAND

2.5G

POE+ UPLINK

6x RJ45

IN-ROOM SWITCH

RADIO TECHNOLOGY

- 802.11be 5 GHz 2x2:2 – 2,882¹ Mbps
- 802.11be 2.4 GHz 2x2:2 – 688² Mbps
- Up to 3,570³ Mbps aggregate PHY
- 4096-QAM · 160 MHz · OFDMA · MLO

IN-ROOM PORTS

- 1 × 2.5G PoE+ uplink (802.3at)
- 1 × PoE-out downlink (802.3af)
- 3 × LAN ports
- 1 × RJ45 pass-through · USB charger

MANAGEMENT & AI

- Newbridge 9X80 On-Premises Controller
- Newbridge Controller – cloud or on-prem
- Internet Access Management Gateway
- Advanced reporting & network insight

SECURITY

- WPA2 / WPA3-PSK encryption
- Client isolation
- Privacy VLAN isolation
- 802.1X / RADIUS authentication

INTRODUCTION

The Newbridge AP722-WP is a Wi-Fi 7 (802.11be) dual-band wall-mount access point built for in-room deployment – hotel guest rooms, hostels, dormitories, apartments, and offices where reliable per-room connectivity matters. Where ceiling and corridor APs struggle to penetrate fire-rated and sound-proofed walls, the AP722-WP places the radio inside the room, delivering strong, consistent Wi-Fi to every user.

From boutique hotels and serviced apartments to student dormitories and clinics, it scales room by room – each unit an independent coverage cell that removes the dead spots and airtime contention of shared corridor access points.

A built-in wired switch is the differentiator: one 802.3at PoE+ uplink feeds the AP plus a PoE-out port, three LAN ports, an RJ45 1:1 pass-through, and a USB charger – so a single cable to each room delivers Wi-Fi, wired ports for IPTV, IP phones and IoT, and device charging, with no extra cabling.

For guests, that means fast, low-latency Wi-Fi for 4K streaming, video calls, and gaming, plus wired ports for a smart TV or set-top box – a premium in-room experience with no added cabling for the operator.

FLEXIBLE IN-ROOM CONNECTIVITY & DEPLOYMENT

The AP722-WP integrates wired and wireless in one wall-mount unit to simplify installation and cut deployment cost. A single run of cable to each room powers the access point and lights up a full set of in-room ports:

- **1 x 2.5G RJ45 uplink (PoE+)** – powered from any 802.3at PoE+ switch.
- **1 x PoE-out downlink** – for an IP phone or PoE-capable IoT device.
- **3 x LAN ports** – for PCs, laptops, IPTV, or non-PoE IoT.
- **1 x RJ45 1:1 pass-through** – carries an analog phone line straight through.
- **1 x USB charging port** – convenient smartphone charging.

This lets property owners and operators save on extra cabling while supporting multiple in-room devices with both power and connectivity.

Built on a Qualcomm Wi-Fi 7 platform, the AP722-WP runs 2x2:2 on both bands with 4096-QAM modulation, 160 MHz channels, OFDMA, and intelligent traffic scheduling – sustaining high-bandwidth, low-latency service across the full mix of in-room devices, from phones and laptops to smart TVs, set-top boxes and IoT.

Security is enforced end to end: WPA2/WPA3 encryption protects sessions, 802.1X integrates with RADIUS, and client isolation with private VLANs contains untrusted devices. The AP722-WP runs standalone or under Newbridge on-premises and cloud controllers, giving administrators centralised visibility, zero-touch provisioning, and automated firmware updates. Compact and energy-efficient, it blends into any room.

¹ The 5 GHz peak rate requires Wi-Fi 7 EHT with 160 MHz channel bandwidth and 4096-QAM, on compatible client devices. 160 MHz availability may vary by region and regulatory domain.

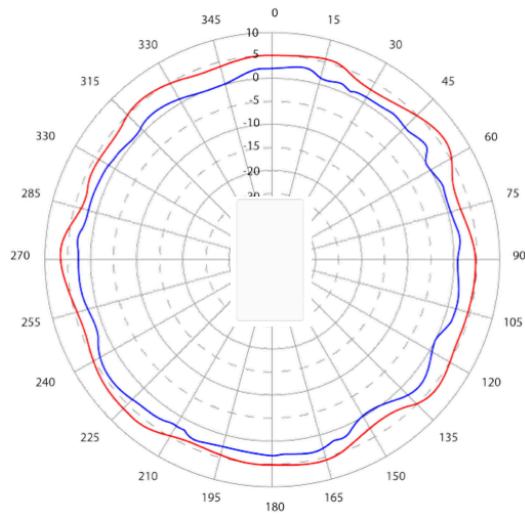
² The 2.4 GHz peak rate requires Wi-Fi 7 features on 2.4 GHz, including 40 MHz channel width and 4096-QAM, on compatible client devices, and may be restricted by local regulatory conditions.

³ The 3,570 Mbps figure is the aggregate theoretical PHY (link) rate – the sum of the 2.4 GHz and 5 GHz PHY rates – not user-achievable throughput. Actual wireless data throughput and coverage vary with environmental conditions, network factors, product placement, network complexity, and client-specific limitations.

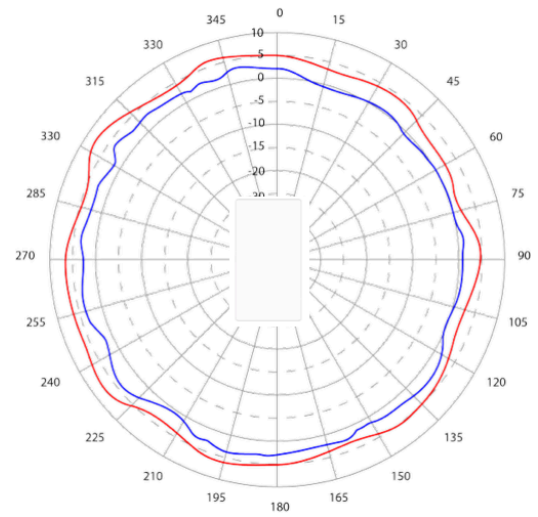


ACCESS POINT ANTENNA PATTERN

Horizontal plane (azimuth) • Average Azimuth (blue) / Average Downtilt (red)

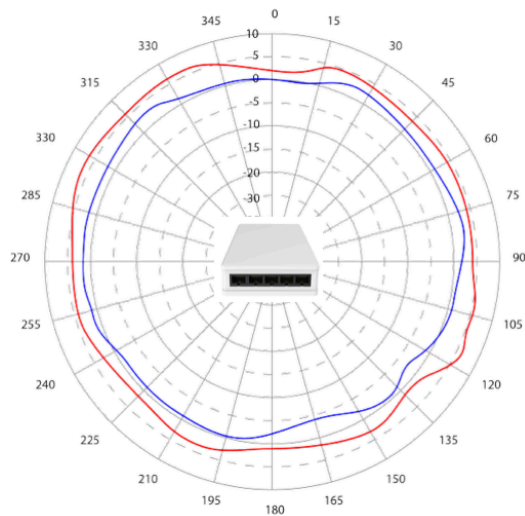


2.4 GHz

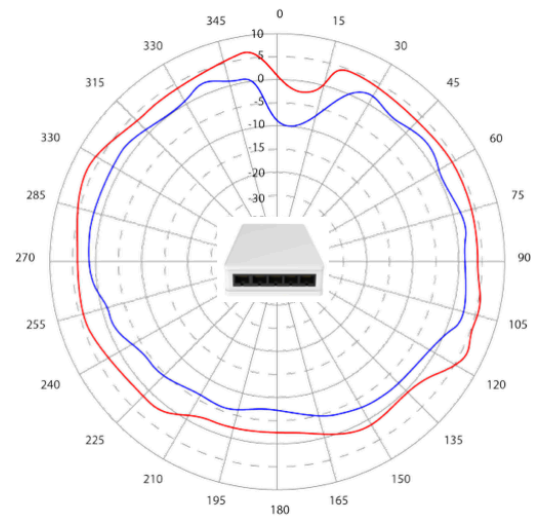


5 GHz

Vertical plane (elevation) • Average Elevation 0° (blue) / 90° (red)



2.4 GHz



5 GHz

TRANSMIT POWER (TX POWER)

STANDARD	RATE	TX (DBM)	RATE	TX (DBM)
2.4 GHz – TX POWER				
802.11b	11M	24±2dBm	1M	24±2dBm
802.11g	54M	22±2dBm	6M	24±2dBm
802.11n HT20	MCS7	21±2dBm	MCS0	24±2dBm
802.11n HT40	MCS7	21±2dBm	MCS0	24±2dBm
802.11ax HE20	MCS11	20±2dBm	MCS0	24±2dBm
802.11ax HE40	MCS11	20±2dBm	MCS0	24±2dBm
802.11be EHT20	MCS13	20±2dBm	MCS0	24±2dBm
802.11be EHT40	MCS13	20±2dBm	MCS0	24±2dBm

STANDARD	RATE	TX (DBM)	RATE	TX (DBM)
5 GHz – TX POWER				
802.11a	54M	20±2dBm	6M	23±2dBm
802.11n HT20	MCS7	21±2dBm	MCS0	23±2dBm
802.11n HT40	MCS7	20±2dBm	MCS0	23±2dBm
802.11ac VHT20	MCS7	20±2dBm	MCS0	23±2dBm
802.11ac VHT40	MCS7	19±2dBm	MCS0	23±2dBm
802.11ac VHT80	MCS9	19±2dBm	MCS0	23±2dBm
802.11ax HE20	MCS11	19±2dBm	MCS0	23±2dBm
802.11ax HE40	MCS11	18±2dBm	MCS0	23±2dBm
802.11ax HE80	MCS11	18±2dBm	MCS0	23±2dBm
802.11ax HE160	MCS11	18±2dBm	MCS0	23±2dBm
802.11be EHT20	MCS13	18±2dBm	MCS0	23±2dBm
802.11be EHT40	MCS13	18±2dBm	MCS0	23±2dBm
802.11be EHT80	MCS13	18±2dBm	MCS0	23±2dBm
802.11be EHT160	MCS13	18±2dBm	MCS0	23±2dBm

RECEIVE SENSITIVITY (RX SENS)

STANDARD	RATE	RX (DBM)	RATE	RX (DBM)
2.4 GHz – RX SENSITIVITY				
802.11b	11M	-89dBm	1M	-95dBm
802.11g	54M	-75dBm	6M	-92dBm
802.11n HT20	MCS7	-77dBm	MCS0	-97dBm
802.11n HT40	MCS7	-74dBm	MCS0	-94dBm
802.11ax HE20	MCS11	-62dBm	MCS0	-88dBm
802.11ax HE40	MCS11	-60dBm	MCS0	-86dBm
802.11be EHT20	MCS13	-60dBm	MCS0	-86dBm
802.11be EHT40	MCS13	-60dBm	MCS0	-86dBm

STANDARD	RATE	RX (DBM)	RATE	RX (DBM)
5 GHz – RX SENSITIVITY				
802.11a	54M	-75dBm	6M	-92dBm
802.11n HT20	MCS7	-72dBm	MCS0	-88dBm
802.11n HT40	MCS7	-70dBm	MCS0	-86dBm
802.11ac VHT20	MCS7	-65dBm	MCS0	-88dBm
802.11ac VHT40	MCS7	-62dBm	MCS0	-86dBm
802.11ac VHT80	MCS9	-60dBm	MCS0	-84dBm
802.11ax HE20	MCS11	-60dBm	MCS0	-90dBm
802.11ax HE40	MCS11	-58dBm	MCS0	-88dBm
802.11ax HE80	MCS11	-54dBm	MCS0	-84dBm
802.11ax HE160	MCS11	-52dBm	MCS0	-82dBm
802.11be EHT20	MCS13	-54dBm	MCS0	-86dBm
802.11be EHT40	MCS13	-52dBm	MCS0	-84dBm
802.11be EHT80	MCS13	-50dBm	MCS0	-82dBm
802.11be EHT160	MCS13	-48dBm	MCS0	-80dBm

Transmit power is the conducted power at the antenna port. Effective radiated power, supported channels, and maximum permitted output vary by country/region per local regulatory requirements.

WI-FI RADIO SPECIFICATIONS

Wireless Standards	IEEE 802.11a/b/g/n/ac/ax/be
Frequency Bands	2.4 GHz: 2.400-2.484 GHz 5 GHz: 5.150-5.850 GHz
Supported Rates	802.11be (Wi-Fi 7): 2.4 GHz up to 688 Mbps · 5 GHz up to 2,882 Mbps¹ 802.11ax: up to 2,402 Mbps (160 MHz) 802.11ac: up to 867 Mbps (80 MHz) 802.11n: up to 300 Mbps (40 MHz) · 802.11a/g: up to 54 Mbps · 802.11b: up to 11 Mbps
Supported Channels	2.4 GHz: 1-13 5 GHz: 36-64, 100-144, 149-165
MLO	- Wi-Fi 7 Multi-Link Operation (802.11be) - Combines the 2.4 GHz and 5 GHz links where the client supports it; the active band combination depends on client capability, regulatory domain and configuration - Per link: up to 160 MHz channel width; up to 4096-QAM
Spatial Streams	2×2 per band (2 streams on 2.4 GHz, 2 on 5 GHz). Under MLO the 2.4 GHz and 5 GHz links can operate together; the links and streams used depend on client capability and operating mode.
Channelization	20, 40, 80, 160 MHz
Modulation	OFDM: BPSK, QPSK, 16/64/256-QAM, 1024-QAM, 4096-QAM
Antenna	4 built-in omnidirectional antennas (2 per band). Gain: 3 dBi @2.4 GHz, 3.3 dBi @5 GHz
Max Transmit Power	2.4 GHz < 24±2 dBm · 5 GHz < 23±2 dBm
Security	Personal: WPA2/WPA3-PSK (AES); Enterprise: WPA2/WPA3-Enterprise (802.1X/RADIUS)

PERFORMANCE & CAPACITY

Peak PHY Rates	2.4 GHz: 688² Mbps 5 GHz: 2,882¹ Mbps
Maximum Stations Capacity	Up to 1,024 associated clients per radio (2,048 per AP) – association limit; ~128 recommended concurrent for typical in-room density
BSSID	Up to 8 per AP

PHYSICAL

Uplink	1 × 100/1,000/2,500 Mbps RJ45, 802.3at PoE+ input
LAN	4 × 100/1,000 Mbps RJ45 (LAN1 = PoE-out, IEEE 802.3af – up to 12.95 W to the device)
Pass-through	1 × RJ45 1:1 pass-through
Console	1 × Console (RJ45)
USB	1 × USB 2.0 Type-A charging port (5 V output)
Reset	1 × Reset button (hold 6-10 s to restore factory defaults)
LED	SYS · 2.4G · 5G · WAN · LAN×4
Power Supply	PoE (IEEE 802.3at); DC 48V input
Power Consumption	< 24 W total (AP plus 802.3af PoE-out load; the RJ45 1:1 pass-through is a separate passive port)
Dimensions	160 × 86 × 29 mm
Weight	0.26 kg
Operating Temperature	Working: -10 °C to 45 °C · Storage: -40 °C to 70 °C
Operating Humidity	5% to 95% (Non-Condensing)
ESD	Air: ±8K, Touch: ±6K
Electrical Surge	Common Mode: 2K, Differential Mode: 1K

PoE-out at LAN1 is drawn from the 802.3at PoE+ uplink budget after the access point's own consumption; the combined AP-plus-PoE-out load stays within the < 24 W total shown above. Power the AP from an 802.3at (PoE+) source for full 802.3af PoE-out.

SOFTWARE SPECIFICATION

Operating Modes

- Fat AP (standalone) and FIT AP (controller-managed) modes, switchable
- Home dashboard: AP up/down rates, running time, device & Wi-Fi information

Wireless

- SSID broadcast; multiple SSIDs per band; hide SSID
- Encryption: WPA3-PSK (AES), WPA2-PSK (AES), OPEN; legacy WPA/WPA2-TKIP for backward client compatibility only
- Wireless MAC address filtering (whitelist)
- Band steering (5 GHz first)
- Wi-Fi scheduled off (timer)
- User isolation (between networks and within the AP)
- Adjustable transmit power · Client number limit · QoS: WMM

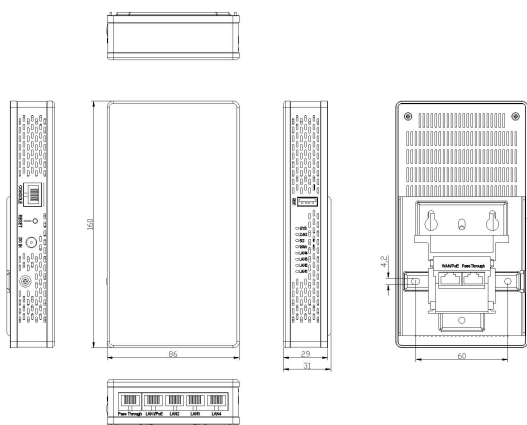
Network & Services

- IP: IPv4 / IPv6 dual-stack
- DHCP server: built-in or external
- Cloud server management · Firewall
- VLAN: VLAN pooling / port-based
- 802.1x: authenticator & supplicant · Roaming

Device Management

- Configuration backup & restore; restore factory settings
- Restart: scheduled and immediate
- Firmware upgrade
- Time management: system time display & synchronization
- System log · Fat / FIT AP switching

DIMENSIONS (unit: mm)



160 × 86 × 29 mm

ORDER INFORMATION

ORDER NO.	DESCRIPTION
NB-AP722-WP	Newbridge AP722-WP Wi-Fi 7 Wall-Mount Access Point, 2x2:2 (2.4 GHz), 2x2:2 (5 GHz)
NB-AP722WP-SU-1Y	Newbridge AP722-WP Hardware and Software Support, 1Y
VC-AP722WP-RPL-1Y	VCARE AP722-WP NBD AHR, Hardware & Software Support, 1Y



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