AltoReach
AP90

60GHz Outdoor Wireless Network Access Point

The AP90 is a 60GHz radio with integrated beamforming antenna that provides best-in-class range in a compact form factor. It supports point-to-multipoint (PtMP) and can be configured as either an access point (AP) or remote station for maximum flexibility. In AP mode, the AP90 can support connectivity to up to 32 remote stations. The AP90 is built-to-last and features IP67 weather-sealing for reliable operation outdoors and in harsh environments.

Models with GPS, Backup Link, and Wi-Fi Management features available Q4-2025.

Early units may vary in appearance

High Capacity
Up to 2Gbps+ aggregate.

Low Latency
Sub 1ms latency.

Adaptive Beamforming
Phased array, beamforming antenna with 90° azimuth and 40° elevation scanning for fast and easy installation.

2.5 Gigabit Ethernet
Built-in 2.5GbE port for maximum throughput.

Backup Link and Wi-Fi Management
The AP90 includes a optional 802.11be 5/6GHz backup connection for increased link resiliency. The AP90 also features a 2.4GHz local Wi-Fi interface for direct radio management.

Extended Range
Support for 60GHz channels 5 and 6 along with high-gain S150 remote stations delivers best-in-class PtMP range.

Security
AltoReach radios feature AES 256 encryption with GCMP (Galois/Counter Mode Protocol) that pairs fast, high-throughput counter-mode encryption with Galois authentication that is now standard in WPA3 and other wireless security.

Carrier-Grade
IP67 rated enclosure and designed for reliable, long-term operation in the field.

Simple and Rapid Installation
Altowav's antennas auto-align for easy installs, and our Open API and native layer 2 architecture enable easy integration into operators' existing networks.

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Specifications

SYSTEM

Configuration	Point-to-Point and Point-to-Multipoint AP or Remote Station
Frequencies	57 - 71GHz
Channel Bandwidths	6 non-overlapping 2.16GHz channels
Duplexing	TDD
Modulation and Coding Schemes	12 levels, adaptive—MCS-0 (BPSK) to MCS-12 (16QAM)
Antenna	Integrated beamforming antenna with wide scanning range: 90˚ azimuth, 40˚ elevation
Maximum EIRP	40dBm
Range	Up to 1.1 miles (1800m) MCS-8 PtMP with S150 Remote Station; Up to 1640ft (500m) MCS-8 PtMP with AP90 Remote Station
Capacity	Up to 2Gbps+ aggregate
Ethernet Frame Type	Transparent bridging of all Ethernet types including VLAN and VLAN stacking
Latency	< 1ms
L2 switching	Complete Layer 2 switching, including VLAN support
Security	AES 256 with GCMP
PtMP Remote Support	Up to 32 Remote Stations
Fail-over Link (Q4-2025)	Optional IEEE 802.11be 5/6GHz wireless backup radio link
Wi-Fi Management Interface (Q4-2025)	IEEE 802.11be 2.4GHz wireless management interface radio link (not intended for use as a Wi-Fi data AP)
Location (Q4-2025)	Integrated GPS receiver to locate individual radios

MANAGEMENT

Management	Web GUI, CLI, REST API and AltoCommand (optional)

CONNECTIVITY

Ethernet	1 x 2.5GbE RJ45
Voltage	56VDC
PoE Input	802.3at+
Power Consumption	25W maximum

MECHANICAL

Dimensions (H x W x D)	5.1" x 4.7" x 2.2" (130 x 120 x 35mm)
Weight	15oz (425g)
Operating Temperature	-40° to +131°F (-40° to +55°C) -22°F (-30°C) cold start
Ingress Protection	IP67
Regulatory	FCC, IC, CE

MODEL NUMBER

AR-AP90-C-G	AP90 60GHz Access Point/ Remote Station Radio

INCLUDED ACCESSORIES

AX-P-IN-AT-5G-US	Indoor 802.3at (30W) 5GbE PoE injector with 0.8m US power cord

REMOTE STATION MODEL NUMBER

AR-S150-C-G	S150 60GHz Long Range Remote Station Radio

ACCESSORIES

AR-MK-T1-EXT	Precision mounting kit for AltoReach radios
AX-PSW-OD-4AT-4C25	Outdoor 4 port PoE 2.5GbE switch
AX-PSW-OD-MOUNT	Pole mount bracket for Outdoor PoE switch

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