

# 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 an 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 128 encryption for 60GHz and AES 256 encryption for 802.11be communication.

### 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.

# Specifications

## SYSTEM

<b>Configuration</b>	Point-to-Point and Point-to-Multipoint AP or Remote Station
<b>Frequencies</b>	57 - 71GHz
<b>Channel Bandwidths</b>	6 non-overlapping 2.16GHz channels
<b>Duplexing</b>	TDD
<b>Modulation and Coding Schemes</b>	12 levels, adaptive—MCS-0 (BPSK) to MCS-12 (16QAM)
<b>Antenna</b>	Integrated beamforming antenna with wide scanning range: 90° azimuth, 40° elevation
<b>Maximum EIRP Range</b>	40dBm Up to 1.1 miles (1800m) MCS-8 PtMP with S150 Remote Station; Up to 1640ft (500m) MCS-8 PtMP with AP90 Remote Station
<b>Capacity</b>	Up to 2Gbps+ aggregate
<b>Ethernet Frame Type</b>	Transparent bridging of all Ethernet types including VLAN and VLAN stacking
<b>Latency</b>	< 1ms
<b>L2 switching</b>	Complete Layer 2 switching, including VLAN support
<b>Security</b>	AES 128 on 60GHz AES 256 on IEEE 802.11be
<b>PtMP Remote Support</b>	Up to 32 Remote Stations
<b>Fail-over Link (Q4-2025)</b>	Optional IEEE 802.11be 5/6GHz wireless backup radio link
<b>Wi-Fi Management Interface (Q4-2025)</b>	IEEE 802.11be 2.4GHz wireless management interface radio link (not intended for use as a Wi-Fi data AP)
<b>Location (Q4-2025)</b>	Integrated GPS receiver to locate individual radios

## MANAGEMENT

<b>Management</b>	Web GUI, CLI, REST API and AltoCommand (optional)
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## CONNECTIVITY

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

## MECHANICAL

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

## MODEL NUMBER

<b>AR-AP90-C-G</b>	AP90 60GHz Access Point/ Remote Station Radio
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## INCLUDED ACCESSORIES

<b>AX-P-IN-AT-5G-US</b>	Indoor 802.3at (30W) 5GbE PoE injector with 0.8m US power cord
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## REMOTE STATION MODEL NUMBER

<b>AR-S150-C-G</b>	S150 60GHz Long Range Remote Station Radio
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## OPTIONAL ACCESSORIES

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