

AltoPlex P421 Bridge Kit

60GHz Outdoor Wireless Gigabit Network Bridge

The P421 Bridge Kit is a pair of 60GHz radios with integrated 128-element beamforming antennas that provide best-in-class link resiliency and full capacity range in a very compact form factor. It is pre-configured for point-to-point (PtP) connectivity.

P421 radios are carrier-grade, manufactured in the USA and feature IP67 weather-sealing for reliable operation outdoors and in harsh environments.

The P421 Bridge Kit includes everything needed to quickly install a multi-gigabit point-to-point link.



High Capacity

Up to 2Gbps aggregate

Low Latency

Sub 1ms latency

Adaptive Beamforming

128-element, phased array, beamforming antenna with 90° azimuth and 40° elevation scanning for maximum link resiliency and ranges up to 1312ft (400m) MCS-9

Gigabit Ethernet

Built-in gigabit RJ45 port

Wi-Fi Management and GPS Location

Connect locally using the Wi-Fi network interface to manage the radio directly. Easily locate the radio using the integrated GPS receiver.

Dense Network Ready

60GHz spectrum with beamforming and TDMA for extremely reliable dense networks

Security

AES 128 encryption with automatic secure key distribution

Carrier-Grade

IP67 rated enclosure and built in USA for reliable, long-term operation in the field

Simple and Rapid Installation

Altowav's antennas auto-align for easy installs. Our Open API and native Layer 2 architecture enable easy integration into operators' existing networks

Specifications

SYSTEM

Configuration	Point-to-Point
Frequencies	57 - 66GHz
Channel Bandwidths	4 non-overlapping 2.16GHz channels
Channel Access	TDMA/TDD
Modulation and Coding Schemes	12 levels, adaptive—MCS-0 (BPSK) to MCS-12 (16QAM)
Antenna	Integrated 128-element beamforming antenna with wide scanning range: 90° azimuth, 40° elevation
Maximum EIRP	40dBm
Range	Up to 400m (MCS9)
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 128
Location	Integrated GPS receiver to identify and locate individual radios

CONNECTIVITY

Ethernet	1 x 1GbE RJ45
Voltage	56VDC
PoE Input	802.3af
Power Consumption	11W maximum
Included PoE Injectors	Indoor 802.3af (15W) 1GbE PoE injector with 2.6ft (0.8m) US power cord

MANAGEMENT

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

Dimensions (H x W x D)	5.9" x 3.8" x 1.4" (150 x 95 x 35mm)
Weight	14oz (400g)
Operating Temperature	-22° to +131°F (-30° to +55°C)
Casing	Die-cast powder-coated aluminum chassis with PC-ABS radome
Ingress Protection	IP67
Regulatory	FCC, IC
ESD	IEC EN 61000-4-2
EMC	IEC EN 61000-4-3
Mounting	Integrated wall and pole mount supporting .5" band clamps. Additional mounting accessories supporting elevation adjustment are available.

INCLUDED ACCESSORIES (2 ea.)

AX-P-IN-AF-1G-US	Indoor 802.3af (15W) 1GbE PoE injector with 0.8m US power cord
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ACCESSORIES

AX-AW3-MT-WALL	Wall standoff bracket that enables azimuth adjustment
AX-AW3-EXT-MOUNT	Extended range pole mounting kit for AltoPlex radios, enabling up to +60/-45° elevation adjustment
AX-PSW-OD-4AT-4C25	Outdoor 4 port PoE 2.5GbE switch
AX-PSW-OD-MOUNT	Pole mount bracket for Outdoor PoE switch