AltoPlex D423

3-Port 60GHz Outdoor Wireless Network Distribution Node/Client

The D423 is a 60GHz radio with integrated 128-element beamforming antenna that provides best-in-class link resiliency and full capacity range in a compact form factor. It supports PtMP and can be configured as either a distribution node or client for maximum flexibility. The D423 also features 3 built-in gigabit RJ-45 Ethernet ports, two of which support PoE output for additional devices.

The D423 is carrier-grade, manufactured in the USA and features IP67 weather-sealing for reliable operation outdoors and in harsh environments.

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 with PoE
- 1 gigabit RJ-45 PoE input
- 2 gigabit RJ-45 PoE outputs for connecting cameras, Wi-Fi APs, or collocated Altowav radios.

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, 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 Distribution Node or Client
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 1312ft (400m) MCS-9
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
PtMP Remote Support	Up to 15 client units +1 distribution node connection
Wi-Fi Management Interface	2.4GHz IEEE 802.11b/g/n wireless management interface (not a data access point)
Location	Integrated GPS receiver to locate individual radios

CONNECTIVITY

Ethernet	3 x 1GbE RJ45
Voltage	56VDC
PoE Input	802.3bt, Type 4, 90W
PoE Ouput	2 x Active, 802.3bt, Type 3, 75W total with up to 60W Max for a single port
Power Consumption	12W maximum (not including PoE output)

MANAGEMENT

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

MECHANICAL

Dimensions (H x W x D)	6.88" x 6.88" x 1.62" (174.75 x 174.75 x 41.15mm)
Weight	1.59 lbs (720 grams)
Operating Temperature	-40° to +131°F (-40° to +55°C) -22°F (-30°C) cold start
Casing	Die-cast powder-coated aluminum chassis with PC-ABS radome
Ingress Protection	IP67
Regulatory	FCC, ISED, CE (pending)
ESD	IEC EN 61000-4-2
EMC	IEC EN 61000-4-3
Radio	ETSI EN 303 722, EN 300 328, EN 303 413
Mounting	Integrated wall and pole mount supporting .5" band clamps. Additional mounting accessories supporting elevation adjustment are available.

MODEL NUMBER

AW3-D423-C-W	D423 3-Port 60GHz Network Distribution/Client Radio

DISTRIBUTION NODE/CLIENT MODEL NUMBERS

AW3-D621-C-W	D621 60GHz Network Distribution/ High-Capacity Client Radio
AW3-C420-C-PW	C420 60GHz Extended Range Client Radio
AW3-C410-C-PW	C410 60GHz Standard Range Client Radio

ACCESSORIES

AX-P-IN-BT-5G-US	Indoor 802.3bt (90W) 5GbE PoE injector with 0.8m US power cord
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