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BreezeAir AXE PTP & PTMP

BreezeAir AXE HIGHLIGHTS

- Superior net capacity: **2.1Gbps**

- 4.9-7.1GHz solution

- **Most efficient dynamic asymmetric TDD protocol**

- Ultra-low latency: 2-5ms

- Long range: **130 Km**

- Top-level security:
  AES-256 encryption & MAC level authentication

- Unmatched interference rejection via unique AIS technology

- Time synchronization eliminates self-interference and allows efficient frequency reuse

- Rugged & reliable IP67 design

- Ultimate availability: Link-in-service time <30 seconds

- Lowest power consumption ensures minimal stress & best MTBF

- Industry-leading 9600 Bytes Jumbo frames support

BreezeAir AXE introduces superior dynamic net throughput of 2.1 Gbps combined with ultra-low latency and top-level security @ 4.9-7.1GHz.

Designed for unmatched interference rejection, BreezeAir's unique Automatic Interference Sensibility (AIS) technology guarantees stable performance with constant latency and throughput.

BreezeAir AXE PTP & PTMP solutions set a benchmark of unrivaled performance and reliability, making it the ultimate choice for futureproof wireless systems.

With unprecedented dynamic asymmetric throughput of 2.1 Gbps and extremely low latency, BreezeAir AXE is the optimal solution for high-capacity applications such as fiber-like backhauls, mission critical networks, video surveillance and nLOS solutions.

Rugged IP67 design, lowest power consumption and industry leading AES-256 encryption ensure top-level security and reliability.

Phenomenal range of more than 130 Km, highest capacity, lowest latency, and outstanding RF interference rejection place BreezeAir AXE at the top of its category.

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BreezeAir AXE Specifications

RADIO

	BreezeAir AXE	BreezeAir AXE-L
TOPOLOGY	PTP, PTMP B5, PTMP CPE	PTP, PTMP CPE
RADIO FREQUENCY	5.9-7.1GHz, 4.9-5.9GHz	4.9-5.9GHz
NET THROUGHPUT	Up to 2.1 Gbps, 2x2 MIMO	Up to 1 Gbps, 2x2 MIMO
RANGE	More than 130Km	Up to 40Km
CHANNEL WIDTH	20/40/80/160 MHz	20/40/80 MHz
MODULATION	14 levels: BPSK - 4096QAM	12 levels: BPSK - 1024QAM
OUTPUT POWER	Up to 28dBm, configurable TPC and ATPC	Up to 25dBm, configurable TPC and ATPC
TIME SYNCHRONIZATION	3 modes: Internal / external / on-board GPS	2 modes: Internal / external
HANDLING INTERFERENCE	AIS - Automatic Interference Sensibility ACM - Adaptive Coding & Modulation ACS - Automatic Channel Selection Fastest ARQ - Automatic Retransmit reQuest	AIS - Automatic Interference Sensibility ACM - Adaptive Coding & Modulation ACS - Automatic Channel Selection Fastest ARQ - Automatic Retransmit reQuest
ENCRYPTION & SECURITY	256-bit AES & MAC level authentication	256-bit AES & MAC level authentication

NETWORKING & MANAGEMENT

ACCESS TECHNOLOGY	Time Division Duplex (TDD), Time Division Multiple Access (TDMA)
ASYMMETRIC TDD	Dynamic & Automatic (according to real time traffic) or Fixed
TYPICAL DATA LATENCY	2-5ms (PTP)
MTU SIZE	9600 Bytes Jumbo frames
NETWORK MODES	Layer 2 Bridge, VLAN, 802.1 ad QinQ, tagging, VLAN / broadcast filters
AUTHENTICATION	Via username + password, RADIUS/TACACS authentication supported
QOS	8 priority queues based 802.1q, 802.1 p, TOS, DiffServ and DSCP
MANAGEMENT	Pv4/1Pv6 dual stack, ViewAir NMS, Cloud-based NMS, WEB (HTTP/HTTPS), SNMPv1, SNMPv2, SNMPv3, Telnet, SSH, EMS (BreezeManager), TFTP
ANALYSIS TOOLS	Built in throughput test, RF Analyzer and path profiling tools
PERFORMANCE DATA	Real time & history -logs and counters of traffic and radio data

PHYSICAL & ENVIRONMENTAL

	BreezeAir AXE	BreezeAir AXE-L
PHYSICAL INTERFACE	2500 Base-T POE	1000 Base-T POE (optional 2 ports)
SFP SUPPORT	1000Mbps (optional)	Not Supported
MECHANICAL	19 x 19 x 4 cm, <1 Kg (connectorized) 21 x 21 x 7 cm, <2Kg (17.5dBi @ 5.xGHz) 30 x 30 x 7 cm, <2.5Kg (23dBi @ 5.xGHz) 30 x 30 x 7 cm, <2.5Kg (24dBi @ 6.xGHz) 37 x 37 x 8 cm, <3.5Kg (16dBi, 90° @ 6.xGHz)	19 x 19 x 4 cm, <1Kg (connectorized) 21 x 21 x 7 cm, <2Kg (17.5dBi) 30 x 30 x 7 cm, <2.5Kg (23dBi)
POWER CONSUMPTION	<13Watt	<13Watt
IP RATING	IP67	IP67
OPERATING TEMPERATURE	-40°C to 60°C	-40°C to 60°C
OPERATING HUMIDITY	100% non-condensing (Rainproof)	100% non-condensing (Rainproof)