

Product Excellence

Highlights

- Superior throughput - **750Mbps**
- **Dynamic asymmetric capacity**
- Best latency - **1ms** typical
- Up to 400,000 PPS (Packets Per Second)
- Long range - more than 130 Km
- Configurable channel bandwidth - 3.5-80 MHz
- 128-bit AES encryption & MAC level authentication
- AIS (Automatic Interference Sensibility) technology makes BreezeAIR the most stable wireless solution on the market
- Time Synchronization eliminates self-interference and allows efficient frequency reuse
- MIMO Radio – higher capacity, longer range and diversity
- The only solution with Hitless ACM - Adaptive Coding & Modulation
- Fastest ARQ - Automatic Retransmit reQuest
- ACS – Automatic Channel Selection



BreezeAIR - PTP & PTMP

BreezeAIR introduces superior dynamic throughput of 750Mbps combined with ultra-low latency and best PPS delivery.

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

BreezeAIR Point-to-Point solutions set a benchmark of unrivaled performance and reliability, making it the ultimate choice for future-proof wireless systems.



Unmatched Interference Rejection

With unprecedented dynamic asymmetric throughput of 750Mbps and ultra-low latency of 1ms, this advanced OFDM 2X2 MIMO wireless system is the optimal solution for high capacity applications such as IP and cellular backhubs, video surveillance and private networks.

By implementing MIMO technology, BreezeAIR offers double throughput, range and reliability as well as enhanced availability.

Highly interfered environment will face Telrad's innovative interference rejection solutions: unique Automatic Interference Sensibility (AIS) technology, the only hitless Adaptive Coding and Modulation (ACM) in the market and the fastest Automatic Retransmit reQuest (ARQ), guaranteeing error-free operation and stability in latency and throughput.

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

BreezeAIR 8000

Telrad's BreezeAIR 8000 is the complete solution for Service Providers and Operators, offering extensive portfolio with net throughput up to 310 Mbps and 'pay as you grow' upgrade capabilities. BreezeAIR 8000 provides most robust, reliable and flexible Point-to-Point and Point-to-Multipoint connectivity solution for Public & Private Enterprises, WiFi hotspots and BWA/LTE backhaul sites.

Specifications

Radio	
Radio Frequency	700 MHz, 900 MHz, 2.0-2.3 GHz, 2.3-2.7 GHz, 3.3-3.8 GHz 4.8-6.0 GHz, 5.6-6.4 GHz, 6.0-7.0 GHz, 7.0-7.8 GHz, 10.0-10.7 GHz
Net Throughput	<ul style="list-style-type: none"> MIMO: scalable 5 - 310 Mbps (up to 375 Mbps air bit rate) SISO: scalable 5 - 150 Mbps (up to 187.5 Mbps air bit rate)
PPS	Up to 400,000 Packets Per Second
Channel Size	Configurable - 3.5/5/7/10/14/20/28/40/50 MHz
Waveform	Advanced OFDM 2x2 dual polarization MIMO - BPSK, QPSK, 16QAM, 64QAM: Hitless 7 stages Adaptive Coding & Modulation (ACM), Fixed modulation mode, LDPC coding, Configurable modulation thresholds (min/ max)
Output Power	Up to 30 dBm, configurable in 1dB step
Handling Interference	<ul style="list-style-type: none"> AIS - Automatic Interference Sensibility Hitless ACM - Adaptive Coding & Modulation ACS - Automatic Channel Selection FEC - Forward Error Correction, k = 1/2, 2/3, 3/4, 5/6 Fastest ARQ - Automatic Retransmit reQuest TDD and FDD modes - software configurable
Encryption & Security	128-bit AES & MAC level authentication



Networking and Management	
Topology	Point-to-Point (PTP), Point-to-Multipoint (PTMP) - software configurable
Access Technology	Time Division Duplex (TDD) & Frequency Division Duplex (FDD) Time Division Multiple Access (TDMA) - dynamic or symmetric
Data Latency	1ms typical per SU
Jumbo Frames	Supported
Network Modes	Layer 2 Bridge, VLAN, QinQ, VLAN / broadcast / IP filters, Layer 3 Routing, NAT, DHCP server, DHCP Relay
VLAN	Transparent, VLAN filter, tagging/stripping, QinQ
QoS	8 priority queues based on 802.1p, TOS and DSCP
Traffic Shaping	Bandwidth control for uplink and downlink independently
Management	ViewAir NMS, WEB, SNMP, Telnet, NBI CORBA, EMS (Link Manager) Built in throughput test, RF Analyzer and path profiling tools
Performance Management	Real time & history - logs and counters of traffic and radio data

Physical and Environmental	
Physical Interface	2x 10/100/1000 Base-T (ODU)
Connector Type	2x RJ-45
Dimensions and Weight	19 x 19 x 4 cm, <1 Kg (connectorized)
PoE Adapter:	
• AC-DC	Input: 100-240 VAC, 47-63 Hz; Dimensions: 12 x 6 x 3.5 cm
• DC-DC	Input: 10-60 VDC; Dimensions: 16 x 6 x 3 cm
Power Consumption	<7 Watt
IP Rating	IP67
Operating Temperature	-40°C to 60°C
Operating Humidity	100% non condensing (Rainproof)

BreezeAIR ACE

BreezeAIR ACE offers superior dynamic throughput up to 750Mbps combined with ultra-low latency in 4.8-6.1 GHz band. Designed for unmatched interference rejection, Telrad's unique Automatic Interference Sensibility (AIS) technology guarantees stable performance with constant latency and throughput. Telrad Point-to-Point and Point-to-Multipoint solutions set a benchmark of unrivalled performance and reliability, making it the ultimate choice of future-proof wireless systems.

Specifications

Radio	
Radio Frequency	4.8-6.1 GHz
Net Throughput	2x2 MIMO - up to 750 Mbps, dynamic asymmetric
Channel Size	Automatic or configurable – 5 / 10 / 20 / 40 / 80 MHz
Waveform	Advanced OFDM 2x2 - Modulations – BPSK, QPSK, 16QAM, 64QAM, 256QAM
Output Power	Configurable up to 30 dBm
Range	More than 130Km
Handling Interference	AIS - Automatic Interference Sensibility AB&CM - Adaptive Bandwidth & Coding & Modulation ACS - Automatic Channel Selection FEC - Forward Error Correction, k = 1/2, 2/3, 3/4, 5/6 ARQ - Automatic Retransmit reQuest
Encryption & Security	128-bit AES & MAC level authentication



Networking and Management	
Topology	Point-to-Point (PTP), Point-to-Point (PTMP) - software configurable
Access Technology	Time Division Duplex (TDD) Time Division Multiple access (TDMA) dynamic or symmetric
Data Latency	1 ms typical per SU
Jumbo Frames	Supported
Network Modes	Layer 2 Bridge, VLAN, QinQ, VLAN / broadcast / IP filters, Layer 3 Routing
VLAN	Transparent, VLAN filter, tagging/stripping, QinQ
QoS	8 priority queues based on 802.1p, TOS and DSCP
Traffic Shaping	Bandwidth control for uplink and downlink independently
Management	ViewAir NMS, Cloud NMS, WEB, SNMP, Telnet, NBI CORBA, EMS (Link Manager), Built in RF Analyzer and path profiling tools
Performance Management	Real time & history - logs and counters of traffic and radio data

Physical and Environmental	
Physical Interface	2x (RJ-45) 10/100/1000 Base-T (ODU)
Dimensions and Weight	19 x 19 x 4 cm, <1Kg (connectorized)
PoE Adapter: • AC-DC • DC-DC	Input: 100-240 VAC, 47-63 Hz; Dimensions: 12 x 6 x 3.5 cm Input: 10-60 VDC; Dimensions: 16 x 6 x 3 cm
IP Rating	IP67
Humidity	100% non-condensing
Operating Temperature	-40°C to 60°C