



## **WipAir 8000**

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### **The best-in-class carrier grade wireless bridge**

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WipAir 8000 is the most advanced point-to-point and point-to-multipoint wireless solution at the most competitive price in the market



# WipAir 8000 Exceptional Highlights

WipAir 8000 introduces superior dynamic net throughput of up to 310 Mbps combined with ultra-low latency and best PPS delivery.

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

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



## High Performance Radio

- Superior net throughput – **310 Mbps**
- **Dynamic asymmetric capacity**
- Best latency – **1ms** typical
- Up to **400,000 PPS** (Packets Per Second)
- Long range – more than 130 Km
- Configurable channel bandwidth – 3.5-50 MHz
- 128-bit AES encryption & MAC level authentication

## Unmatched Interference Rejection

- **AIS** (Automatic Interference Sensibility) technology makes WipAir the most stable wireless solution in the market
- **Time Synchronization** eliminates self interference and allows 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

## Extremely Low CAPEX & OPEX

- **Most competitive price**
- **Flexible capacity**, software upgradeable
- **Rugged & Reliable** IP67 design
- **Compact & Simple** to install and maintain
- **< 7Watt** power consumption
- Power & data redundancy
- Multiple frequency bands in one radio

## Advanced Networking

- **Point-to-Point & Point-to-Multipoint** on a single platform
- State-of-the-art NMS
- WEB, EMS, SNMP and Telnet management
- QoS based on 802.1p, TOS & DSCP
- VLAN tagging/stripping & QinQ
- Uplink and downlink bandwidth control
- Over the air remote management

## Specifications

### Radio

<b>Radio Frequency</b>	2.3-2.7 GHz, 4.9-6.0 GHz, 6.0-7.0 GHz, 7.0-8.0 GHz, 10.0-11.0 GHz
<b>Net Throughput</b>	Build as you grow: <ul style="list-style-type: none"> <li>• MIMO: scalable 5 - 310 Mbps (up to 375 Mbps air bit rate)</li> <li>• SISO: scalable 5 - 150 Mbps (up to 187.5 Mbps air bit rate)</li> </ul>
<b>PPS</b>	Up to 400,000 Packets Per Second
<b>Channel Size</b>	Configurable - 3.5/5/7/10/14/20/28/40/50 MHz
<b>Waveform</b>	Advanced OFDM 2x2 dual polarization MIMO - BPSK, QPSK, 16QAM, 64QAM: <ul style="list-style-type: none"> <li>• Hitless 7 stages Adaptive Coding &amp; Modulation (ACM)</li> <li>• Fixed modulation mode</li> <li>• LDPC coding</li> <li>• Configurable modulation thresholds (minimum / maximum)</li> </ul>
<b>Output Power</b>	Configurable up to 30 dBm
<b>Handling Interference</b>	<ul style="list-style-type: none"> <li>• AIS – Automatic Interference Sensibility</li> <li>• Hitless ACM – Adaptive Coding &amp; Modulation</li> <li>• ACS – Automatic Channel Selection</li> <li>• FEC – Forward Error Correction, k = 1/2, 2/3, 3/4, 5/6</li> <li>• Fastest ARQ – Automatic Retransmit reQuest</li> </ul>
<b>Encryption &amp; Security</b>	128-bit AES & MAC level authentication

## Networking and Management

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

## Physical and Environmental

<b>Physical Interface</b>	2x 10/100/1000 Base-T (ODU)
<b>Connector Type</b>	2x RJ-45
<b>Mechanical</b>	19 x 19 x 4 cm, <1 Kg (connectorized)
<b>Power</b>	Power over Ethernet (PoE) - 48 VDC
<b>PoE Adapter:</b> <ul style="list-style-type: none"><li>• <b>Input Power</b></li><li>• <b>Mechanical</b></li></ul>	100-240 VAC, 47-63 Hz 10 x 5 x 2.5 cm
<b>Power Consumption</b>	<7Watt
<b>IP Rating</b>	IP67
<b>Operating Temperature</b>	-40°C to 60°C
<b>Operating Humidity</b>	100% non condensing (Rainproof)

## About WaveIP

WaveIP is the technology leader of Point-to-Point and Point-to-Multipoint Broadband Wireless solutions in the sub-11 spectrum, founded in January 2000. WaveIP solutions are perfect for IP & cellular backhubs, video surveillance and security networks, enterprises and municipality networks and business grade broadband access services.

Teradion Industrial Park  
Misgav 20179, Israel  
Tel: +972-4-902-7 000  
Fax: +972-4-999-0324  
Email: [info@waveip.com](mailto:info@waveip.com)  
[www.waveip.com](http://www.waveip.com)

