


## R5000-Mmx 22 dBi

3.4 - 3.7 GHz

<b>Description</b>	InfiLINK 2x2 high-capacity 40/80/150/300 Mbps Integrated 22 dBi Dual-polarization Antenna Point-to-Point Backhaul				
<b>Performance</b>	40, 80, 150 and 300 Mbps throughput options (license upgradeable)				
<b>Distances</b>	30+ km				
<b>Radio</b>	<ul style="list-style-type: none"> <li>• Radio technology: MIMO 2x2 with OFDM 64/128</li> <li>• Modulation types: BPSK 1/2 to QAM64 5/6</li> <li>• Transmit power: up to 23 dBm</li> <li>• Receiver sensitivity: -67..-97 dBm</li> <li>• Frequency bands: 3.4-3.7 GHz</li> <li>• Channel bandwidth: 3.5/5/7/10/14/15/20/28/30/40 MHz</li> <li>• 22 dBi dual-pol integrated antenna</li> <li>• Center frequency adjustment step: 125 kHz</li> <li>• Channel duplex: TDD</li> </ul>				
<b>Wired Interfaces</b>	<ul style="list-style-type: none"> <li>• Gigabit Ethernet port (10/100/1000 Base-T) RJ-45 connector</li> <li>• Serial port (RS-232)</li> </ul>				
<b>Power Consumption</b>	<p>Consumption:</p> <ul style="list-style-type: none"> <li>• Up to 12 Watts</li> </ul> <p>Power options:</p> <ul style="list-style-type: none"> <li>• 110-240 VAC @ 50/60 Hz</li> <li>• ±43..56 VDC</li> </ul>				
<b>Form Factor and Dimensions</b>	<ul style="list-style-type: none"> <li>• Outdoor Unit (ODU):</li> </ul>  <p>370 x 370 x 90 mm, 3.7 kg</p> <ul style="list-style-type: none"> <li>• Indoor Unit (IDU-BS-G): 124 x 72 x 38 mm, 0.3 kg</li> </ul>				
<b>Part Number Options</b>	R5000-Mmx/	<i>Freq. Band</i>	<i>Capacity</i>	<i>Output Power</i>	<i>Ant.</i>
		35	40 80 150 300	2x200	2x22
<b>Part Number Example</b>	R5000-Mmx/35.80.2x200.2x22				

# Features

## RADIO

- **Voice/RTP Aware Superpacketing**
  - to minimize jitter and latency for multimedia applications
- **DFS**
  - intelligent search for a cleanest channel and interference avoidance
  - radar detection (depending on regulatory domain)
  - continuous background spectrum monitoring (for Instant DFS enabled units only)
  - seamless channel change in case of congestion or radar detection (for Instant DFS enabled units only)
- **Automatic Bitrate Control**
  - to ensure a 100% stable link irrelevant of changes in external conditions
- **Automatic Transmit Power Control**
  - to track and keep optimal input signal level to maximize performance for each link and reduce overall interference within a given transmit power and EIRP limitations
- **Automatic Distance Learning**
  - to optimize performance for any link distances from dozens of meters to 100 km and above
- **Channel Time Adjustment**
  - to improve performance on heavily loaded links
- **Spectrum Analyzer mode**
  - interference detection
  - non-invasive spectrum analysis (for Instant DFS enabled units only)
- **Channel testing tools**
  - channel performance measurement
  - advanced diagnostics

## MAC

- **Dynamic adaptive Polling**
  - Centralized marker grant mode
  - Dynamically takes into account channel activity
  - Permanent channel testing
- **Pseudo-radio Interface**
  - unique InfiNet Wireless feature to join InfiNet Wireless networks via 3rd party equipment (Wired Ethernet segments, IP clouds)
- **Automatic over-the-air firmware upgrade**

## MANAGEMENT FEATURES

- **Web-interface**
  - basic settings
  - channel diagnostics: spectrum analysis, antenna alignment, channel throughput measurement
  - unit and RF links monitoring
  - maintenance: firmware upgrade, license and configuration import/export
  - tech support diagnostic reports generation
  - command-line access
- **Command-line interface for in-depth configuration and diagnostics accessible via:**
  - secure shell (SSH)
  - telnet
  - serial port
  - remote shell
- **SNMPv1 / SNMPv3 support** (MIB II, private MIB)
- **Configurable SNMP Traps**

## STANDARD COMPLIANCE

- **Radio**
  - EN 301 893 v.1.5.1
  - EN 302 502 v.1.2.1
  - FCC part 15.247
- **EMC**
  - EN 301 489-1
  - EN 301 489-17
  - FCC Part 15 Class B
- **Safety**
  - EN 60 950-1:2006
- **RoHS**
  - Directive 2002/95/EC

## NETWORKING

- **Ethernet-over-IP tunneling**
- **ARP protocol support**
- **MAC/IP filtering**
- **Full-fledged 2nd layer switch:**
  - Transparent transport for any type of Ethernet traffic including MPLS, stacked VLANs, etc.
  - Multiple switching groups
  - Full VLAN support including Q-in-Q (IEEE 802.1q and 802.1ad)
  - STP/rSTP support
  - IGMP Snooping with Querrier mode
  - Trunk groups support
- **RIPv2 / OSPFv2 /static routing**
- **Tunneling** (Ethernet-over-IP, IP-over-IP)
- **L2/L3 Firewall**
- **NAT**(multipool, H.323-aware)
- **DHCP client/server/relay**

## SECURITY FEATURES

- **Storm / flood protection**
- **Password protection**
- **Protocol messages encryption**
- **Secure command-line access via SSH protocol**

## QUALITY-OF-SERVICE

With many QoS permutations, QoS implementation works transparently in the network based on IEEE802.1p standard as well as ToS/DiffServ, guaranteeing optimal performance under any load conditions and lowest jitter/delays for priority traffic.

### Quality-of-Service features:

- **16 priority queues**
- **IEEE 802.1p support**
- **IP TOS / DiffServ support**
- **Full voice support**
- **Traffic limiting** (absolute, relative, mixed)
- **Traffic redirection**

## ENVIRONMENTAL

- **Outdoor Units:**
  - 40..+60C, 100% humidity, condensing
- **Indoor Unit:**
  - 0..+40C, 95% humidity, non-condensing

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