

ENTERPRISE WIRELESS LAN

Universal Access Point™ 2100

Benefits:

- **Wireless access anywhere in the enterprise**
- **Enterprise roaming**
- **Investment protection built in**
- **Radio Independent™**
- **Enterprise system network management**
- **High performance wireless communication**
- **Industrial and rugged**

The Intermec 2100 Universal Access Point is the choice for high performance wireless LANs and supports the most demanding requirements for industrial strength wireless networking.

Wireless access anywhere in the enterprise

- Access point, wireless access point, and wireless bridging all in a common platform
- NEMA4/IP54 protection
- Heater options for harsh environments
- Wide selection of RF antennas
- Non-incendive antenna system

Enterprise roaming

- Wireless roaming across routers and switches
- Advanced IP tunneling and data link tunneling

Investment protection built in

- Select the best technology today, migrate tomorrow
- Radio Independent™ allows freedom of choice
- Full support for ALL the wireless LAN standards: OpenAir, IEEE 802.11 Direct Sequence, IEEE 802.11b High Rate (11 MBPS)
- Long range radio options available using S-UHF and 900 MHz radio technologies
- Patented dual radio support

Enterprise system and network management

- INCAView™ HP OpenView™
- WWW browser, TELNET, FTP, DHCP, BootP, SNMP management
- Electronic software distribution
- Graphical network map

High performance wireless communications

- Best performance/range
 - Best of class radio technologies
 - Wide selection of external antenna options



- Automatic load balancing
- Least cost routing maximizing wireless bandwidth
- Standard priority and high priority queues for unicast and Multicast Traffic
- High Reliability
 - Spanning Tree organizes 802.1D LANs into a seamless, reliable wireless LAN system
 - Auto (re)Config for simplified network set-up, redundancy and fault tolerance
 - Dual file system allows fail-safe upgrade
- Advanced Network Features
 - DHCP and BootP
 - Echo diagnostic protocol
 - Client ARP transition for associated nodes
 - Station parameter registration
- Advanced Filtering and Flooding
 - Broadcast/unicast flooding
 - Static and dynamic filtering
 - Universal of hierarchical flooding
 - Backward learning filter
 - Multicast filtering
 - Protocol filter
 - Pattern matching filter
 - VLAN ID filter

Universal Access Point 2100

Physical Characteristics

Length: 355 mm (14.0")
Height: 95 mm (3.75")
Width: 236 mm (9.3")
Weight: 2.63 kg (5.8 lb)
Input Voltage: 100-240 VAC Auto Ranging Power Supply

Wireless LAN Characteristics

IEEE 802.11b High Rate Wireless Radio

Frequency Band: 2.4 GHz, actual frequencies vary by country
Radio Type: IEEE 802.11b High Rate (11 Mbps)
Modulation: Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)
Radio Power Output: 15 dBm
Radio Data Rate: 11 Mbps High/5.5 Mbps Medium/2 Mbps Standard/1 Mbps Low
 Automatic fallback for increased range
Channels: United States (FCC) 11 Channels, Europe (ETSI) 13 Channels, other countries per local regulations
Bit Error Rate: Better than 10⁻⁵

Range	1 Mbps	2 Mbps
Open Environment	1750ft (533m)	1300ft (396m)
Semi-Open	375ft (114m)	300ft (91m)
Closed Environment	165ft (50m)	130ft (40m)
Unlimited range with roaming		
Receiver Sensitivity:	-95 dBm	-92 dBm

Range	5.5 Mbps	11 Mbps
Open Environment	885ft (270m)	525ft (160m)
Semi-Open	230ft (70m)	165ft (50m)
Closed Environment	115ft (35m)	80ft (24m)
Unlimited range with roaming		
Receiver Sensitivity:	-87 dBm	-82 dBm

Security: IEEE 802.11 Wired Equivalent Privacy (WEP) standard, 128-bit wep optional

2.4 GHz OpenAir™ Wireless Radio

Frequency Band: 2.4 GHz, actual frequencies vary by country
Radio Type: WLI Forum OpenAir™
Radio Power Output: 500 mW/100 mW (Europe)
Radio Data Rate: 1.6 Mbps per channel, 800 Kbps fallback rate for extended range

Channels: Supports 15 independent, non-interfering* virtual channels* (hopping patterns)

Receiver Sensitivity: -77 dBm @ 1.6 Mbps/-85 dBm @ 800 kbps

Range: Up to 150 meters (500 ft.) radius indoors, 300 meters (1000 ft.) outdoors Unlimited using roaming

Security: 20 digit security id's available

900 MHz Falcon Wireless Radio

Frequency Band: 902-928 MHz frequency band

Radio Type: Direct Sequence Spread Spectrum (DSSS)

Radio Power Output:

Minimum: 24 dBm (250 mW)
 Typical: 25.5 dBm (350 mW)
 Maximum: 27 dBm (500 mW)

Radio Data Rate: 90, 225, or 450 Kbps

Channels: 7 @ 90 Kbps, 1 @ 225 or 440 Kbps

Range: Up to 600 meters (2000 ft.) (line of sight)

Coverage: 9,000-31,500 meters (100,000-350,000 sq. ft.) (conservative)

Synthesized UHF Wireless Radio

Frequency Band: 430-450 MHz (Low Band) 450-470 MHz (High Band)

Radio Type: Synthesized UHF (four -level frequency shift keying)

Radio Output Power: 0.5 W (27 dBm) Low and High Bands, 10 mW (10 dBm)

Radio Data Rate: 19.2 Kbps (14.4 Kbps with forward error correction)

Receiver Sensitivity: -105 dBm

Range: Up to 1,067 m (3,500 ft) line of sight

Coverage:
 0.5 W, 74,320 sq m (800,000 sq ft) indoors
 10 mW, 9,290 sq m (100,000 sq ft) indoors

Channels Spacing: 20 KHz or 25 KHz

Network Information

Ethernet Interface: 10BASET, 10BASE2

Ethernet Data Rate: 10 Mbps

Filtering Rate: Full Ethernet Rate (14,880 packets/second)

Filters: Protocol Filters-IP, IPX, NetBEUI, DECNET, AppleTalk, Other Broadcast Traffic Filters-IP ARP, Novell RIP, SAP and LSP, Adjustable bandwidth allocation

Software Upgrades: Downloadable over the network or serial port

Management

Management Interfaces: SNMP; Web browser-based manager; serial port, or Telnet via RF, serial and Ethernet

SNMP Agents: Version 1 RFC 1213, (IEEE 802.1 ID MIB), Enterprise MIB

SNMP Traps: Cold start, authorization violation

Environment

Operating:

Standard Unit 0° to 50° C (32° to +122° F)
 Heater Option -20° to 50° C (-4° to +122° F)
 Heater Option with insulated bag -30° to 0° C (-22° to 32° F)

Storage Temperature Range: -40° to +70° C (-40° to +158° F)

Humidity (Non-Condensing): 10 to 90% relative humidity, non-condensing

Industrial Sealing: IP54 (NEMA 4)

Accessories

Mounting Brackets

Wide selection of RF Antenna's and Cables

Regulatory Approvals

FCC Part 15.247 Certified
 Canada RSS 210 Certified
 ETS 300 328 Type Approved
 EN 55022 / CISPR 22 Class A
 FCC Part 15 & ICES-003 Class A
 SCT Certification, NOM-EM-121 AS 3548, C tick Marked
 Compliant with all European Directives, CE Marked (ETS 300 826)
 UL Listed, UL 1950/C22.2 #950 IEC 60529-IP53 and C22.2 #94-ENC3.5 Non-incendive 2.4 GHz and 900 MHz antenna circuits UL Listed, UL 1604 & C22.2 #213 for Div 2; Class I — Groups A, B, C & D; Class II — Groups F & G; Class III
 TUV Licensed, EN 60950 & EN 60529-IP53
 NYCE Certified, NOM 19

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