



AIRPAIR™ 100

High Capacity Wireless Ethernet Bridge

AirPair 100 provides one of the most affordable high capacity wireless connections for synchronous and IP based applications.

The compact system is designed for all-outdoor mounting, and includes an advanced RF/antenna assembly, as well as a high spectral efficiency digital modem.

The AirPair 100 accommodates a variety of international frequency plans and can be configured with a choice of antenna sizes to fit the most demanding of environmental conditions.

Perfectly suited for rapid installation and carrier-grade reliability. AirPair applications include:

- › Inter-building LAN Extension
- › Wireless ISP Backhaul
- › Metro Ethernet Access
- › Fiber Path Redundancy

Key Features

- › Transparent TCP/IP link extension
- › Wire-speed 100 Mbps full duplex performance and virtually zero delay for multimedia applications
- › Rapid installation and commissioning using PDA and PC-based tools
- › In or-out-of band remote SNMP management
- › Supports 802.1q VLAN encapsulation for payloads and optional management
- › High system gain with direct Cat-5 attachment and integrated antenna
- › Compact, weatherproof all-outdoor packaging requires no indoor space
- › Secure over-the-air encryption and authentication available
- › Up to 4 x T1/E1 wayside channel options
- › Efficient channel bandwidths, from 28 MHz to 56 MHz
- › Licensed and license-exempt frequency bands from 18 to 32 GHz



Bold new ideas in broadband wireless
www.dragonwaveinc.com

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MECHANICAL (ALL OUTDOOR)

Radio (without antenna)	12 cm x 17.1 cm (diameter) 4.75 in x 6.75 in (diameter)
Modem	40 cm x 19.6 cm x 8.1 cm 15.7 in x 7.7 in x 3.2 in
Weight (Radio & Modem)	7.25 Kg (16 lbs)
Mounting	Mast

ANTENNAS

Type	Parabolic Reflector
Size	30.5 - 180 cm (12-72 in) diameter
Polarization	Horizontal or Vertical
Wind Loading	
Operational	110 kph (70 mph)
Survival	200 kph (125 mph)
Mount Adjustment	
Azimuth	+/- 45°
Elevation	+/- 22°

PAYLOADS

Capacity	100 Mbps
Interface	Fast Ethernet
T1/E1 (Optional)	4 x T1/E1 extension ports with optional APX-104 T1/E1 unit

POWER

Input	-36 VDC to -60 VDC
Optional Adapter	110/240 VAC
Consumption	50 Watts

CONNECTIONS

Power	-48V, Cable Supplied
Payload	MIL Circular (outdoor) RJ45 (indoor)
Craft Terminal	RS 232

NETWORK MANAGEMENT (NMS)

Alarm Management	SNMP Agent, Settable
History	Alarm Window in EMS, History file - with polling
NMS Compatibility	OpenView, or any SNMP based network manager
Security	3 Level Authentication; Any, NOC, Unique Peer to Peer
S/W Update	Remote update to flash, via management channel
EMS	Supplied, PC Application, connect locally or through network

STANDARDS

System	FCC Part 101, ETSI EN 301-785v 1.1 Class 4
EMC	EN 301 489, EN 300 385,
Safety	IEC 950, FEC 60950, CSA 22.2

INDICATORS

Power
Fault
Network Sync
TX Mute
Modem Sync
Activity (Network)

ENVIRONMENTAL

Operating Temperature	-40°C to + 55°C (-40°F to +131° F)
Humidity	100 % Condensing
Altitude	4500 m (14,760 ft)

RF SYSTEM

General	18 GHz	23 GHz	26 GHz	28 GHz	32 GHz
Regional Compliance	FCC/CAN	FCC/CAN/ETSI	ETSI	FCC/CAN	ETSI
Frequency Range	17.7-19.7	21.2-23.6	24.5-26.5	25.35-28.35	31.8-33.4
T/R Spacing (MHz)	1560	1200 / 1008	1008	450	812
Specification	FCC101	FCC101/EN 300-198	EN 300-431	FCC101	EN 300-197
FCC Emission Designator	40M0D1D	50M0D1D		50M0D1D	
Bandwidth					
RF Channel Bandwidth (MHz)	40	28/50/56	28 / 56	50	28 / 56
RF Power (dBm Max)	13	13	13	13	13
Threshold @ 10 ⁻⁶ BER	-77	-73 / -77	-73 / -77	-77	-73 / -77
System Gain (no antenna)	90	86 / 90	86 / 90	90	86 / 90
Modulation	16 QAM	32/16 QAM	32/16 QAM	16 QAM	32/16 QAM
Dispersive Fade	>43 dB	>43 dB	>43 dB	>43 dB	>43 dB
Frequency Stability	<10 PPM	<10 PPM	<10 PPM	<10 PPM	<10 PPM
Antenna Gain					
12" Antenna Gain	N/A	35.5 dBi	36.3 dBi	36.5 dBi	37.3 dBi
24" Antenna Gain	38.6 dBi	40.7 dBi	41.3 dBi	42.0 dBi	43.2 dBi
36" Antenna Gain	42.0 dBi	44.2 dBi	44.8 dBi	N/A	N/A
48" Antenna Gain	44.5 dBi	46.2 dBi	N/A	N/A	N/A
72" Antenna Gain	47.2 dBi	N/A	N/A	N/A	N/A

Specifications subject to change without notice



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