EXICOM

EX8320 is a dual ethernet radio providing true MESH connectivity via the 802.11a/b/g protocols. EX8320 employs a self-forming and self-healing network topology incorporating 802.11e QoS plus balanced bandwidth distribution. Full support is provided for roaming clients, traffic prioritisation for VOIP, data and video plus secure VPN's (virtual private networks). Exicom's EX8320 is the most cost effective solution for delivering broadband wireless applications in outdoor environments.

COMPETITIVE ADVANTAGE

▸ Fully integrated optional antenna, "plug and play"
▸ Designed for extreme environmental conditions
▸ Feature laden
▸ Scalability and comprehensive support.

SUPERIOR FLEXIBILITY

▸ True MESH network
▸ Self-configuring and self-healing
▸ Remote management and upgrades
▸ Secure

EX8320

DUAL ETHERNET RADIO AND WIRELESS MESH ROUTER WITH QUALITY OF SERVICE [QoS]

HIGH PERFORMANCE

▸ High system gain
▸ Power over ethernet
▸ Rugged outdoor terminal
▸ Advanced bandwidth distribution mechanism
▸ Quality of service to guarantee a consistent and reliable network

LOW COST OF OWNERSHIP

▸ Fast deployment
▸ Low cost simple installation
▸ Low power consumption
▸ Low maintenance
▸ Realtime NMS monitoring

EX8320 *Integrated Wi-fi MESH solution*
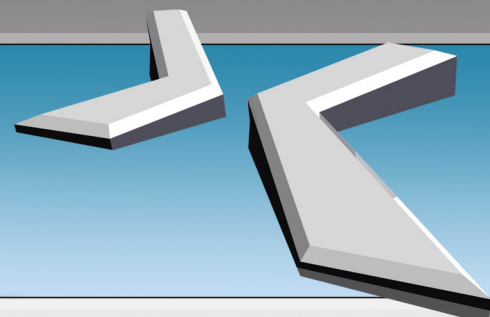
Features

- Integrated backhaul / AP radio in one enclosure
- 802.11b and 802.11g connectivity with 5.8Ghz backhaul
- 802.11e WMM and MESH QoS
- 802.11q VLAN enabled
- Bandwidth allocation per ESSID (even BW distribution)
- Range up to 50 Km
- Repeater option for increased range
- 10/100BaseT interconnectivity
- Field stations in weatherproof cabinet
- Low power consumption
- Licence free for 2.4/5.8 GHz systems in many countries
- Built in 8.5dBi backhaul / 5dBi access point omni antennas
- Roaming friendly
- Low latency, supports 5+ hops
- Remote network management system for monitoring / upgrade

System Parameters

Frequency bands (MHz)

2.4 GHz ISM Band	2412 to 2462 MHz
5.8 GHz Band	5725 to 5850 MHz

RF Channels	Up to 14
Modulation Type	Direct Sequence Spread Spectrum QPSK or BPS AP- 16 / 64QAM BH
Radio Access Method	Direct Sequence
System Range	Up to 50 Km

User Data Interface – Network Specifications

Air Interface	IEEE 802.11a,b and g
Quality of service	802.11e WMM and MESH QoS
VLAN	802.1Q VLAN per ESSID
Data Port/LAN Interface	10/100BaseT Ethernet
Data Rate	Up to 54 Mbps
Connector	RJ-45
Baseband Cable Distance	Up to 100 m on 10BaseT Ethernet link

RF Specifications

RX Sensitivity @ 10^{-6} BER	-85 dBm @ 2Mbps
	-90 dBm @ 1Mbps
Transmitter Power	+23 dBm maximum
Duty Cycle	100% at 60°C ambient
Antennas	8.5dBi omni Backhaul / 5dBi omni AP
System ERP	31.5dBi BH / 28dBi AP

Link Performance

Below is a table of typical receive signal levels in dB required for a given data rate.

RX Level (dB)	Rate Mbps
802.11g Mode	
-72	54
-89	6
802.11b Mode	
-85	11
-90	1
802.11a Mode Backhaul	
-76	54

EX8320 Terminal

Security / Routing Protocols

Security	AP-WEP/WPA/WPA 2, AES-128 MAC address filtering, VPN / ESSID's
Muti-hop routing	5+hops with low latency
Routing	Static, NAT/Masquerading, Dynamic
IP Addressing	DHCP server or relay

Maintenance / Management Data Interface

Command Console Port	10BaseT SNMP

Power

Power Supply Voltage DC Input	POE (18v) enabled
Power Consumption Typical	12W maximum

Environmental

Operating Temperature	-40°C to +55°C
Humidity (at ambient)	10 to 95% RH, non-condensing
Shock and Vibration	Mil 810D
Exposure to Elements	IP66, NEMA 4X, all except submerged

Mechanical

Terminal	Extruded Fiberglass with neoprene gasket, NEMA 4X (equal to IP66), rain, wind and ice protected
Mounting	Wall or Pipe/pole 25.4 to 57mm diameter
Size (mm)	250(h) x 200(w) x 60(d)
Weight	1.48kg per terminal (typical)

Options

- 110/240 VAC for field units
- Full duplex repeater
- Solar power kits