

EXICOM

EX8300 is a wireless ethernet bridge communications link providing up to 54 Mbps for 802.11b and 802.11g ethernet connectivity. EX8300 is an expandable and programmable digital radio for broadband data connectivity to local and widely spread remote sites.

COMPETITIVE ADVANTAGE

- ▶ Trusted brand
- ▶ Worldwide deployment of Exicom product
- ▶ Comprehensive global support

SUPERIOR RELIABILITY

- ▶ Designed for extreme environments
- ▶ Proven technology
- ▶ Long service life



EX8300

ETHERNET BRIDGE
MULTIPOINT AND POINT-TO-POINT
WIRELESS COMMUNICATIONS SYSTEM

HIGH PERFORMANCE

- ▶ High system gain for long range
- ▶ Rugged outdoor terminal
- ▶ Secure digital transmission
- ▶ Supports point-to-point or point-to-multipoint
- ▶ Up to 54 Mbps data throughput

LOW COST OF OWNERSHIP

- ▶ Fast deployment
- ▶ Low cost simple installation
- ▶ Very low power consumption
- ▶ Low maintenance
- ▶ Local and remote management



Features

- ◆ 802.11b and 802.11g connectivity
- ◆ 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 GHz systems in many countries
- ◆ Panel and Hi-gain parabolic antenna options
- ◆ Separate antenna for ease of installation
- ◆ Extensive central network management system for monitoring and provisioning

System Parameters

Frequency bands (MHz)

2.4 GHz ISM Band 2400 to 2483.5 MHz

RF Channels Up to 14

Modulation Type Direct Sequence Spread Spectrum QPSK or BPS

Radio Access Method Direct Sequence

System Range @2.4 GHz Up to 50 Km

(with 24 dBi antenna option, 12 dB fade margin & line of sight interference free spectrum)

User Data Interface

Air Interface IEEE 802.11b and g

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 +15 dBm minimum
+16 dBm typical

Duty Cycle 100% at 60°C ambient

Antenna Connector N-Type Female

System ERP 34dBi (16dBm TX+18dBi antenna)

Antenna Options Omni, panel, sector and parabolic
9 to 28 dBi gain

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	
-65	54
-68	48
-73	36
-76	24
-78	18
-80	12
-82	9
-86	6
802.11b Mode	
-80	11
-83	5.5
-84	2
-87	1



EX8300 Terminal

Maintenance / Management Data Interface

Command Console Port RS232 or 10BaseT SNMP

Power

Power Supply Voltage

DC Input 12VDC, 1.2A

Power Consumption

Typical 14.4W average

Environmental

Operating Temperature -30°C to +60°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)

330(h) x 280(w) x 150(d)

Weight

3.7kg per terminal (typical)

Options

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



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