

# EXICOM

EX8200 is a flexible wireless communications link providing up to 512 Kbps for ethernet or synchronous data, up to 8 voice circuits or a combination of both. EX8200 is field programmable through a PC allowing the selection of lines, system configuration and bandwidth along with diagnostic aids. EX8200 provides high quality PCM voice services allowing for high speed dialup modem, ethernet or synchronous data connections to 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



# EX8200

DIGITAL POINT-TO-POINT  
WIRELESS VOICE + DATA COMMUNICATIONS SYSTEM

## HIGH PERFORMANCE

- ▶ High system gain for long range
- ▶ Flexibility of interfaces with voice + ethernet
- ▶ Full telephony services with 64 kbps PCM
- ▶ Secure digital transmisson

## LOW COST OF OWNERSHIP

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



## Features

- ◆ 2, 4, 6 or 8 line field terminal
- ◆ POTS plus Ethernet or V.35 data
- ◆ Range up to 96 Km
- ◆ Full G3 fax and 33 Kbit/s dialup modem support
- ◆ 10BaseT interconnectivity
- ◆ Field stations in NEMA weatherproof cabinet
- ◆ Low power consumption
- ◆ Licence free for 2.4/5.8 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)

900 MHz Band	902 to 928 MHz
2.4 GHz ISM Band	2400 to 2483.5 MHz
3.5 GHz Band	3400 to 3600 MHz
5.8 GHz Band	5725 to 5850 MHz

**RF Channels** 10 Operating plus one for Administration

### Channel Spacing

900 MHz, 2.4 & 5.8 GHz	12 MHz
3.5 GHz	1.75/3.5 MHz @ 256/512kbps

**Modulation Type** Direct Sequence Spread Spectrum  
QPSK CDMA with proprietary Time Division Duplex

**Radio Access Method** TDMA FDD

**Spreading Codes** 4 Auto-selectable Orthogonal codes

**Overall Data Throughput** 512, 384, 256, 128 or 64kbps selectable

**System Range @2.4 GHz** Up to 96 Km @ 256kbps  
(with 24 dBi antenna option, 12 dB fade margin & line of sight interference free spectrum)  
Up to 48 Km @ 512kbps

## Line Interface

**Voice Lines (DS0)** 2, 4, 6 or 8

**Interface** 2 wire or 4 wire +E&M

**E&M Signalling** Type 5

**Voice Coding** 64kbps PCM, ITU G.711, A or u-Law

**Fax/Modem Data** Full Fax and V90 modem support (max speed supported is 33.6kbps due to the analogue/digital conversion)

**Impedance** Both resistive and reactive are factory selectable, 600Ω typical,

**Max DC loop resistance** 1200Ω, including instrument

**Line current** 20mA min. to 24mA max.

**Open line voltage** 36V to 48V

**Nominal transmit level** 0dBm0, factory programmable

**Nominal receive level** -2dBm0, factory programmable

**Frequency response** 300 to 3400Hz

**Return loss** 24dB

### Ringing

Waveform	Balanced sinusoidal
Ring frequency	Factory programmable
Ring voltage	60VAC RMS.
Ring power	3 REN
Ring detect threshold	24-110V <sub>RMS</sub> , 17-34Hz

**Payphone Signalling** 12 or 16kHz meter pulse, typically set for 200mA

**Payphone Compatibility** Soft loop reversal and optional 12 or 16 KHz signal pulse metering

**Regulatory** LSSGR, TR57, ITU Q.552, G.712



**EX8200 Terminal**

## User Data Interface

**Data Port Interface** 10BaseT Ethernet or Synchronous V35

**Synchronous Data Rate** 64, 128, 256,-512kbps selectable from configuration GUI

**Digital Latency** <4.5mSec end-to-end

**Baseband Cable Distance** Up to 100 m on 10BaseT Ethernet link

## RF Specifications

**RX Sensitivity @ 10<sup>-6</sup> BER** -93 dBm @ 256kbps  
-90 dBm @ 512kbps

**Transmitter Power** -20 to +20 dBm, auto set for CDMA operation

**Duty Cycle** 100% at 60°C ambient

**Antenna Connector** N-Type Female

**Maximum ERP** 45dBi (20dBm TX+25dBi antenna)

## Maintenance / Management Data Interface

**Command Console Port** RS232 or 10BaseT

## Power

### Power Supply Voltage

Filtered 12 to 24VDC (32VDC max.), protective ground/earth required

### Power Consumption

Exchange/FXO/Base	2.5W typical
Subscriber/FXS/Remote	3 – 9W typical

## Environmental

**Operating Temperature** -30°C to +60°C

**Humidity (at ambient)** Up to 90% RH, non-condensing

**Shock and Vibration** Mil 810D

## Mechanical

**Terminal** Extruded Fiberglass with neoprene gasket, NEMA 4X, 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** 3.6kg per terminal (typical)

## Options

- ◆ 110/240 VAC for field units
- ◆ Full duplex repeater
- ◆ Solar power kits
- ◆ Ethernet 10BaseT



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