EXICOM

EX8610 is a powerful and flexible Ethernet radio designed to industrial standards and offering never before seen features. Utilising true TDM technology effectively eliminates packet collisions and extends the radios range to that of professional microwave trunking netwoks. The radios fixed low latency makes its suitable for time critical networks such as SCADA, power protection, industrial switching and monitoring, and time critical communication networks. The EX8610 is an extremely versatile radio.

COMPETITIVE ADVANTAGE

- Designed for industrial applications
- Wide temperature range with high reliability
- IDU and ODU
- VoIP prioritisation

APPLICATIONS

- VoIP Networks
- Rural Broadband
- SCADA/Remote equipment monitoring
- Streaming media

EX8610

CSMA/TDMA POINT TO POINT AND POINT TO MULTIPOINT IP RADIO FOR INDUSTRIAL AND LONG HAUL APPLICATIONS

HIGH PERFORMANCE / SUPERIOR FLEXIBILITY

- Point to Point or Point to Multipoint
- High levels of security
- Definable flow control for asymmetric data transfer
- TDM for high speed duplex data over 120Km
- Rugged IP67 outdoor terminal option
- Up to 108Mbit/s point-to-point OTA data rate

LOW COST OF OWNERSHIP

- Rapid deployment
- Ease of installation
- Low power consumption
- Realtime NMS monitoring
- Small physical size

EX8610 CSMA/TDMA IP

Features

- 802.11a CSMA or TDM connectivity
- Exceptional range - up to 160 Km
- 10/100BaseT interconnectivity
- Indoor rackmount (IDU) or outdoor polemount (ODU) options
- Low end-to-end latency
- Low power consumption
- Licence free for 2.4 and 5.4 - 5.8 GHz systems in many countries plus licensed bands
- Panel and Hi-gain parabolic antenna options
- Separate antenna for ease of installation for IDU or ODU
- ODU model has integrated 23 dBi 5 GHz antenna option

System Parameters

Frequency bands (MHz)		
	700 MHz	900 MHz
	2.4 GHz	3.65 GHz
	5.2 GHz	5.4 GHz
	5.8 GHz	6 GHz
RF Channels (MHz)	Non-overlapping channels 5, 10, 20 & 40 MHz wide channels	
Radio Type	Orthogonal Frequency Division Multiplexing (OFDM)	
Modulation Type	64QAM	16QAM
	QPSK	BPSK
Radio Access Method	Direct Sequence	
Configurations	Point-to-point	
Mini PCI Add-on Cards	Card slots available for radio and interface options	

User Data Interface

Data Throughput	
IP Mode	60+ Mbit/s Asymetric throughput in CSMA (802.11a)
TDM Mode	16/32 Mbit/s symmetric throughput in TDM
Over-the-air Rate	Up to 24 or 54 Mbit/s (108 Mbit/s in turbo mode)
End-to-end Latency	**CSMA** Per IEEE 802.3
	TDM 5 mSec + propogation delay
Data Port/LAN Interface	10/100BaseT autonegotiation Ethernet
Number of Ethernet Ports	1 data port + 1 management port
Framing Code	IEEE 802.3/U
Bridging	Self learning up to 2047 MAC addresses
Connector	RJ48
QoS Services	WME – Prioritises traffic according to voice, video, best effort and background
Compatibility	IPv6

RF Specifications

RX Sensitivity	**54 Mbit/s**	-72 dBm	**24 Mbit/s**	-82 dBm
	12 Mbit/s	-86 dBm	**6 Mbit/s**	-90 dBm
Transmitter Power	+23 dBm	6-24 Mbit/s		
	+18 dBm	54 Mbit/s		
Duty Cycle	100% at 55°C ambient			
Antenna Connector	N-Type Female			
Antenna Options				
IDU	External Panel or parabolic 9 to 28 dBi gain			
ODU	Panel or 9 to 22 dBi gain external antenna			

Security

Security Mechanism	WPA2 PSK
Encryption	AES (NIST/FIPS 140-2 compliant), WEP, WEP2, WPA, AES-128, 64, 128, 152-bit WEP data encryption

Network Management Interface

User Interface	Browser based access via Ethernet port with Flash GUI
Setup and Alignment	Audio tone varies with signal strength
Protocol	HTTPS
Upgrade Capabilities	Local and remote software upgrades
Telemetry Alerting	Email and GUI
Diagnostics	Local and remote loopback testing
Management Port	DHCP based
Configuration Management	Built in with full history
Voltage Input Monitoring	9-56 V +/-3%
Temperature Monitoring	-40 to 120°C
Programmable Alerting	Email and GUI

Power

Power Supply Voltage	100-240 VAC, 12 VDC or -24 or -48 VDC
ODU POE Power	POE Injector connects via outdoor CAT-6e cable (300m max)
Power Consumption	6-8W

Environmental

Operating Temperature	**ODU**	-40°C to +60°C
	IDU	-20°C to +45°C
Humidity (at ambient)	**ODU**	Up to 100% RH
	IDU	5 to 95% RH, non-condensing
Exposure to Elements		
IDU	Indoor installation	
ODU	IP67, NEMA 4X, all except submerged	

Mechanical

Indoor Terminal or IDU	
Mounting	19 inch Rackmount
Size (mm)	45(h) x 485(w) x 150(d) mm
Weight	0.5 Kg
Outdoor Terminal or ODU	
Case	Extruded Fibreglass with neoprene gasket, NEMA 4X (equal to IP66), rain, wind and ice protected
Mounting	Wall or Pipe/pole 25 to 57mm diameter
Size (mm)	394 (x 381 x 102 mm
Weight	2.05 Kg

Approvals

Designed to comply with:

Safety	UL60950, CAN-CSA C22.2 60950, EN60950, IEC 60950
EMC	FCC 47CFR class B part 15, subpart B, CAN/CSA-CEI/IEC CISPR22-02, EN300 386, EN301 489, EN55022, EN61000, EN55024, AS/NZ CISPR 22
Environmental	IEC 60721 class 4M5 IP67

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