

EXICOM

EX6200 Hawk2 provides a highly reliable, cost effective, wireless link into rural or isolated areas. Two equal and independent audio circuits allow simultaneous transfer of telephony, audio, or modem data traffic over a single VHF or UHF radio circuit.

COMPETITIVE ADVANTAGE

- ▶ Modular system - low maintenance
- ▶ Respected by Telcos worldwide
- ▶ Comprehensive worldwide support

SUPERIOR RELIABILITY

- ▶ Dependable in extreme environments
- ▶ Proven technology
- ▶ Long service life



EX6200 Hawk2

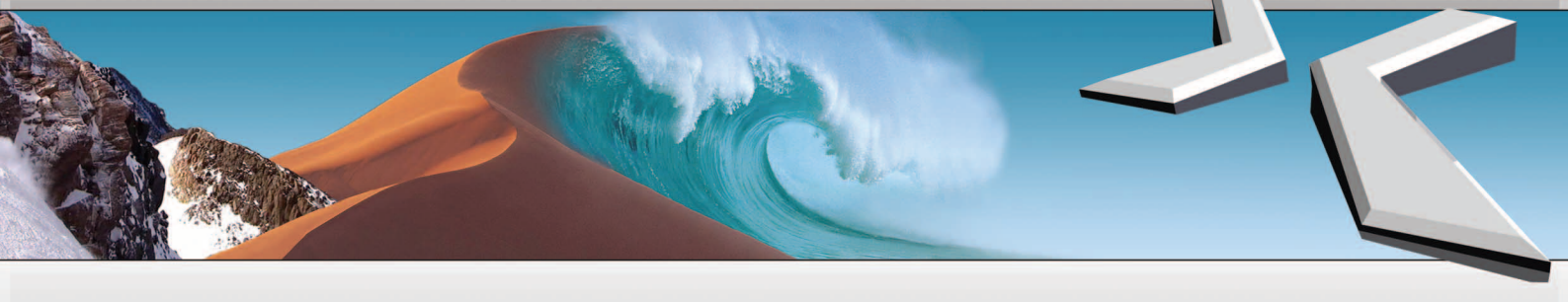
DUAL CHANNEL
WIRELESS TELECOMMUNICATIONS LINK

HIGH PERFORMANCE

- ▶ ITU specification line replacement
- ▶ Full telephony services
- ▶ Modem data up to 24.6kbps
- ▶ 50km transmission range (extendable with up to 3 repeaters).

LOW COST OF OWNERSHIP

- ▶ Two line copper replacement
- ▶ Requires minimal infrastructure
- ▶ Solar power compatible
- ▶ Minimal maintenance
- ▶ Local and remote management



EX6200 Hawk2 Dual Channel Wireless Telecommunications Link

Features

- ♦ Dual circuit telephone line replacement (phone/fax/modem)
- ♦ Integral local and remote system monitoring
- ♦ Rack or Wall mount, modular construction
- ♦ Decadic or DTMF dialling
- ♦ Secondary lightning protection
- ♦ Integral digital speech privacy
- ♦ External alarm output relay
- ♦ Adaptive hybrid balancing
- ♦ Caller Line ID supported

Options

- ♦ 110/250 VAC or 22-60 VDC supply modules
- ♦ Full duplex repeater
- ♦ Solar power kits
- ♦ 19" Rack mount shelf (for rack mounting of wall mount terminal)
- ♦ Handheld service terminal
- ♦ Weatherproof enclosures
- ♦ Payphone interface for 12/16 kHz and/or line reversal signalling
- ♦ Yagi antennas and feeder kits

System Parameters

Frequency bands (MHz)

VHF	68 – 78, 72 – 82, 78 – 88 138 – 148, 148 – 162, 159 – 174, 240 – 260
UHF	380 – 403, 403 – 423, 410 – 430, 430 – 450 450 – 470, 470 – 490, 480 – 500, 490 – 512

Channel Bandwidth 25 kHz

Modulation Type Direct Frequency Modulation

Duplexer Spacing

68 – 88 MHz	4.0 – 6.0 MHz
138 – 174 MHz	4.6 – 10.0 MHz
240 – 512 MHz	5.0 – 10.0 MHz

Frequency Selection Synthesiser, switch selectable
5 or 6.25 kHz steps

Subscriber Ident Codes 10 unique codes

System Deviation Typically ± 2.5 kHz

Distortion (Full Link)* <3%

Frequency Response* Meets ITU-T recommendation (Full Link)
G.232, Graph B
Conforms to ACIF S003 2001 Fig.3
Conforms to SWS-001 Nov 1996 Fig 2.5

Group Delay Distortion Meets ITU-T M102

Signal to Noise Ratio (for -70dBm Rx Input level)
Chan. A 70dBBrOp, (typical)
Chan. B 70dBBrOp, (typical)

Unintelligible Crosstalk 65dBBrOp, (typical)

*Distortion and frequency response figures may be affected when Hawk2 is used in paths with more than 3 repeater-hops. Please contact Exicom for further information

Line Interface

2-wire 600 Ω , 900 Ω , BT3
Max DC loop resistance 1500 Ω
Line supply Selectable 60/120 VDC (open circuit)

4-wire 600 Ω , Type I and V M-wire

Line Receive/Send Levels -18 to +4dBm

Ring Generator

Voltage 85Vrms @ 3REN
Frequency 18 or 25Hz $\pm 10\%$ @ 3REN

Inband Alarm Tones

Low Battery < 11.4VDC
VSWR > 3:1
Low receive level

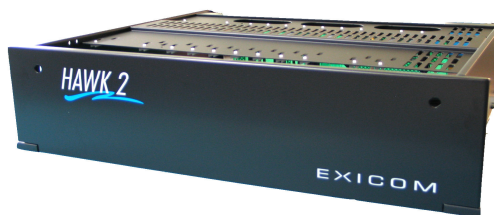
Receiver

Sensitivity >-116 dBm (0.35 μ V)
(@Rx input, 12dB SINAD)

Intermodulation >70 dB CEPT

Spurious Responses UHF >70 dB CEPT
VHF >75 dB CEPT

Selectivity >75 dB CEPT



Transmitter

Transmitter Power	(Adjustable, at duplex antenna port)
<470MHz	1 - 10 W (30-40dBm)
>470MHz	1 - 8 W (30-39dBm)
Frequency Stability	± 1.0 ppm
Spurious Emissions	< 1 μ W (-30dBm)
Duty Cycle	100% at 55°C ambient (<3000m AMSL)
VSWR Protection	Withstands VSWR of 20:1, at any phase angle

Electrical

Input Voltage range	10.8 to 15.5VDC Nominal 13.8VDC Negative earth
Power Consumption (Tx output measured at duplex antenna port)	10W, 13.8Vdc in Max 60W, typically 53-55W 1W, 13.8Vdc in Max 40W, typically 25-28W
Standby mode	
Subscriber cycling	Typically 1.8W (130mA)
Subscriber non-cycling	Typically 4.8W (348mA)
Exchange non-cycling	Typically 4.0W (290mA)

Mechanical

Size (mm)	
Rackmount	135(h) x 483(w) x 435(d)
Wallmount	390(h) x 380(w) x 125(d)
Weight	(including power supply)
Rackmount	10 kg per terminal (typical)
Wallmount	7 kg per terminal (typical)

Environmental

Ambient Operating Temp	-30°C to +55°C
Humidity	Up to 95% RH, at 0°C to 45°C non-condensing
Altitude	3000m AMSL without derating

Standard Compliance

Safety	AS/NZS-IEC 60950
EMC	EN55022 ETSI EN301 489-1/4
RF	NZ RFS 25, 26, 36 AS4295 FCC Parts 15, 22, 90 RSS119

Application Diagram

