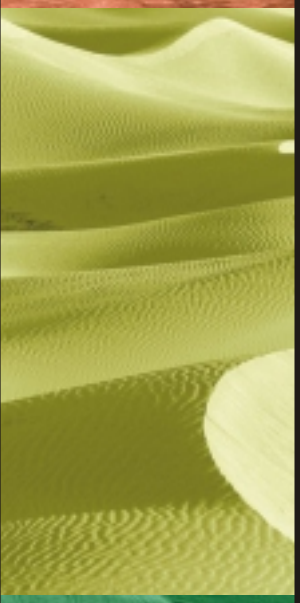
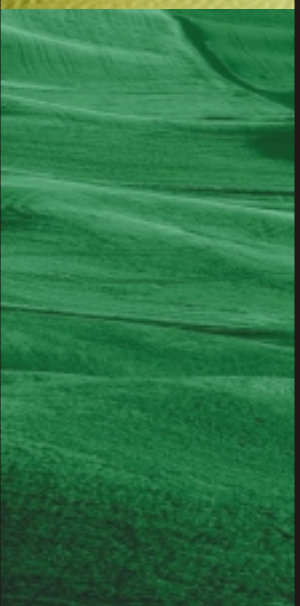




HAWK 2

"Last Mile" radio telecommunications link

Hawk 2 provides two telephone circuits to subscribers who are isolated from the Public Switched Telephone Network. Hawk 2 provides an alternative to copper pairs, via reliable ITU-T standard radio telephone links, enhanced by digital audio processing. Powerful diagnostics provide flexible configuration, easy setup and rapid maintenance; ensuring minimum downtime.

- Dual telephone circuits on 25kHz radio channel
- Hawk 2 replaces standard copper pairs
- Digital Signal Processing (DSP) for superior audio performance
- Remote diagnostics minimise maintenance costs
- Interfaces to phone, fax, modem, payphone, POS terminal
- Low power consumption for solar powered sites
- High speed data capability

EXICOM

'Last Mile' radio telecommunication link

Benefits

- Dual telephone circuits on a 25kHz radio channel
- Hawk 2 replaces standard copper pairs
- Digital Signal Processing (DSP) for superior audio performance
- Remote diagnostics minimise maintenance costs
- Interfaces to telephone, fax, modem, payphone, Point of Sale Terminal (POS)
- Low power consumption for solar powered sites
- High data speed capability; up to 28.8 kbit/s, typically 19.2 kbit/s

Features

- Integral local and remote system monitoring
- Locally programmable system parameters
- Rack or wall mounted terminals
- Modular construction
- Decadic or DTMF dialing
- Secondary lightning protection
- 2-wire and 4-wire+E&M operation (Type I and V)
- Point to point operation
- Discrete subscriber codes eliminate false start
- Internal audio fault tones and external alarm output relay
- Adaptive Hybrid Balancing
- 10 W at Antenna port

Optional Capabilities

- 110/250 VAC or 22-60 VDC supply
- Full duplex repeater
- Solar power kits
- Handheld service terminal
- Weatherproof enclosures
- Rack Mount Shelf
- Payphone interface for 12/16 kHz and/or line reversal signalling
- Caller line ID

System

Frequency Bands (MHz)			
VHF	68 - 78	72 - 82	78 - 88
	138 - 148	148 - 162	159 - 174
UHF	380 - 403	403 - 423	410 - 430
	430 - 450	450 - 470	470 - 490
	480 - 500	490 - 512	
Channel Bandwidth	25 kHz		
Emission Designator	16K8F9 WWF		
Duplex Spacing	68 - 88 MHz 4 - 6 MHz 138 - 174 MHz 4.6 - 10 MHz 380 - 512 MHz 5 - 10 MHz		
Frequency Selection	Synthesiser, switch selectable in 5 or 6.25 kHz steps		
Subscriber Ident. Codes	10 unique codes		
Max. System Deviation	± 5 kHz		
Distortion (Full Link)	<3%		
Frequency Response	Meets ITU-T recommendation (Full Link) G.232, Graph B		
Group Delay Distortion	ITU-T M102		
Signal to Noise Ratio	(@ -70dBm Rx Input) (Allows full 10dB fade margin)		
Chan. A	70 dBr0p (typ.)		
Chan. B	70 dBr0p (typ.)		
Unintelligible Crosstalk	65 dBr0p (typ.)		
Power Supply Voltage	10.8 to 15.5 VDC (Nominal 13.8 VDC) Negative earth		
Power Consumption	45 W (Tx @10 W, 12 VDC input) Standby Mode: Cycling (Subscriber) = 1.8 W Non-Cycling (Subscriber) = 4.8 W Non-Cycling (Exchange) = 4.0 W		

Line interface

2-wire	600Ω, 900Ω, Complex Maximum DC loop resistance 1500Ω 50 VDC supply to line
4-wire+E&M	600Ω, ±M-wire Type I and V
Send/Receive Line Levels	-18 to +4 dBm
Ring Generator	85 Vrms, 18 or 25 Hz ± 10% @ REN 3
Inband Alarm Tones	Battery < 11.3 VDC VSWR > 3:1 Low receive level

Transmitter

RF Output	1-14 W (adjustable) (30-41.5 dBm) into duplexer 1-12 W (30-40.8 dBm) >470 MHz
Frequency Stability	+/- 2.5 ppm (+/-1.0 ppm optional)
Spurious Emissions	< 1 μW (-30 dBm)
Duty Cycle	100% at 55°C ambient (<3000 m AMSL)
VSWR Protection	Withstands VSWR of 20:1 at any phase angle

Receiver

Sensitivity	>-116 dBm (0.35μV) for Rx input @SINAD 12 dB
Intermodulation	>70 dB CEPT
Spurious Responses	UHF>70 dB CEPT VHF>75 dB CEPT
Selectivity	>75 dB CEPT

Mechanical

Dimension	
Rackmount	135(h) x 483(w) x 435(d) (mm)
Wallmount	390(h) x 380(w) x 125(d) (mm)
Weight	
Rackmount	10kg per terminal
Wallmount	7kg per terminal

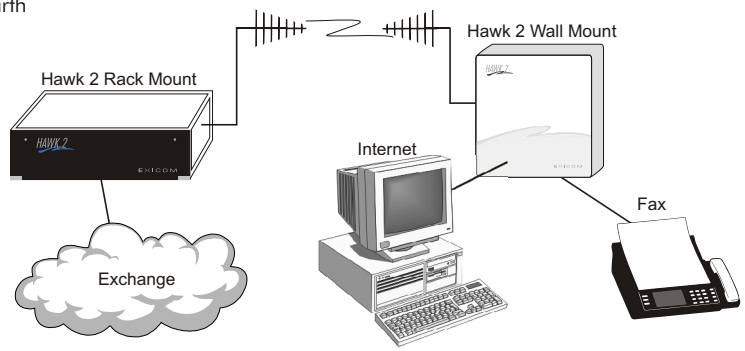
Environmental

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

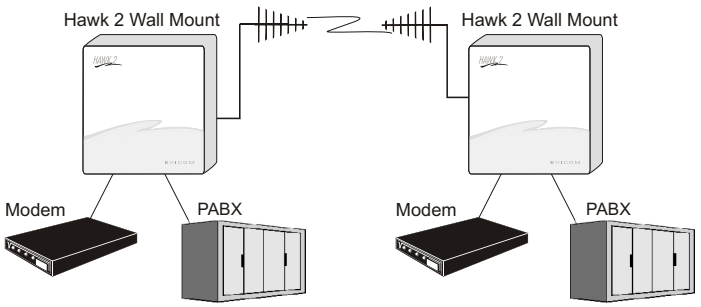
Standards

Safety	AS/NZS-IEC 60950
EMC	EN55022, ETSI EN301 489-1/4
RF	NZ RFS26, AS4295, FCC Parts 15, 22,90, RSS119, ETSI EN300 086
Line	PTC200, DPT-TE-001/9, TIA/EIA-IS-968, CS-03, AS/ACIF, S0 02/4/43

2-wire Telephone Operation



4-wire E&M Point to point



Tel: 64 4 237 0169
Fax: 64 4 237 9696

www.exicom.co.nz

Exicom Technologies Ltd
Private Bag 50912, Porirua
New Zealand
Email sales@exicom.co.nz

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