



Xfin Base

# Xfin Base

Unconventional Thinking in a Conventional World



The newest addition to the Xfin family of Simoco products, Xfin Base is the world's first distributed IP conventional basestation, enabling switchless communications in a conventional PMR environment. Xfin Base sits on the same hardware platform as the revolutionary Xfin Trunked system and Xfin software control means that Xfin Base can be upgraded to a Trunked Basestation with a simple software upgrade.

- 1U Form factor
- High environmental specification (-25°C to +55°C)
- Transmit Duty Cycle 100%, full duplex
- Modular construction for low MTTR
- Rack or wall mounted
- Microsoft Windows based Programming Tool
- Fully Programmable
- Event / Action Programming
- PMR frequency bands covered (66-520MHZ)
- In-built loudspeaker for audio monitoring
- IP connection to Dispatchers and Control Systems
- 37-way Facilities socket with programmable pin functions
- Dual-redundant, speed controlled fans
- Local Encode/Decode CTCSS, DCS and Selcall
- Transmission Timers
- Telecom interconnect

# Technical Data

## XFIN Base



### Specifications

#### 1. General

Channel Bandwidth	10kHz, 12.5kHz(11K0F3EJN) or 25kHz (16K0F3EJN) selectable per channel
Modulation	Freq. F3E (voice) pre-emphasised/flat, or FFSK data (1200 or 2400bps)
Frequency Bands	E0: 66-88MHz. AC: 136-174MHz. K1*: 174-208MHz. KM*: 208-245MHz R1: 335-375MHz. R3*: 335-400MHz, TU: 400-480MHz UW: 440-520 MHz * subject to availability
Stability	± 2.0ppm
Temperature	-25°C to +55°C Operating (Full Spec.) -40°C to +80°C Storage
Antenna Connect	2 x 50Ω female N-type
Environmental	IP20 ingress protection, Humidity <95% non-condensing Programmable facilities connector (37 way D-type)
Inputs/Outputs	RS232 serial connection (9 way D) Ethernet IP interface (100baseT-RJ45) Power connector (5 Pin, 25 D-shell) - IEC connector
Supply Voltage	11.8 to 14.8V DC negative earth (13.65V nominal)
Type Approval	CE Type approvals to R&TTE Directive 1999/05/EC: EN300-086 Radio, EN300-113 Data, EN301-489-05 EMC, EN300-219 Sig. EN60950 safety, TBR15 and 17-line, FCC and AS/NZ
Dimensions	44mm(1U) High x 437mm Wide x 450mm Deep (Excluding cables and ears)
~ (In Wall Mount)	125mm High x 465mm Wide x 470mm Deep
Power Requirement	100V AC/230V AC Mains or 12V DC/24V DC (nominal) for 25W Additional 24V needed for 100W version
Weight	6.95 kg

#### 2. Transmitter

Transmit Power	1W to 100W, selectable per channel
Tx Current Consumption	Typical: 25W:5.7A (20°C ambient; no Engineer's Handset) Max: 25W:8.85A (fans & audio on max plus Engineer's Handset)
Duty Cycle	100%
Audio Distortion	<5% at 1kHz, 60% deviation
Audio Frequency Response	+1dB to -3dB of pre-emphasised 300 to 3000Hz on 25kHz channel, 300 to 2550Hz on 12.5kHz channel
Intermodulation	>40dB or >70dB attenuation with Internal Isolator option (TSF-ISOLATOR).
Hum and Noise	>40dB (12.5kHz), 45dB (25kHz)
Transmit Rise Time	<25mS

#### 3. Receiver

Sensitivity	Voice: ≥12dB SINAD for 0.3μVpd for 12.5kHz chan. Data: typical FFSK performance for <10-2 BER (<20%MER): 0.3μVpd - 1200 baud in 12.5kHz & 1200/2400 baud in 25 kHz, 0.5μVpd - 2400 baud in 12.5kHz channel. [Ref: EN300-113-1:9.1]
Rx Current Consumption	Typical: 1.0A (20°C ambient; no Engineers Handset) Max: 1.55A (fans & audio on max plus Engineers Handset)
Selectivity	>73dB (25kHz), >63dB (12.5kHz)
Intermodulation	>70dB attenuation (ETSI method)
Audio Response	±3dB of de-emphasised 300Hz to 2.55kHz for 12.5kHz chan with CTCSS
Audio Output	2Wrms internal monitor speaker
Distortion	<5%
Blocking	>95dB at ±1Mhz
Hum and Noise	>40dB (12.5kHz)

For more information contact your local Authorised Simoco Representative:

#### Note:

Typical figures based on normal operating conditions. Not all combinations of frequency bands and options are available for every market area.

For additional information on this or any other Team Simoco product, visit our web site at: [www.teamsimoco.com](http://www.teamsimoco.com)

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Team Simoco Ltd  
Field House  
Uttoxeter Old Road  
Derby DE1 1NH  
England

Tel: +44 (0) 1332 375500  
Fax: +44 (0) 1332 375666  
Email: [customerservice@teamsimoco.com](mailto:customerservice@teamsimoco.com)  
Web: [www.teamsimoco.com](http://www.teamsimoco.com)

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