



TSF2000 VHF/UHF BASE STATION



The TSF2000 family is a range of advanced Base Stations for Analogue Communications Systems.

The TSF 2025, 2025i and 2100 are slim-line, cost effective, high performance Base Stations for the 21st Century with comprehensive remote control facilities.

- High performance in 1U height, 19" base stations, TSF2025: 1-25W cont, and TSF2100: 25-100W cont.
- High environmental specification (-25C to +55C)
- Transmit Duty Cycle 100%, Full duplex
- Modular construction for low MTTR
- Rack or wall mounted
- Microsoft Windows based Programming Tool
- DSP controlled, fully programmable
- PMR frequency bands covered (66-530MHZ)
- Completely compatible with SRM9000 Series of Mobile Radios
- In-built loudspeaker for audio monitoring
- Plug replaces FX5000 and PRF10 Base Stations in existing systems, with pre-configuration file. Other manufacturers' products can be plug-replaced by using appropriate cables (if required).
- Direct connection to Dispatchers and Control Systems
- 37-way Facilities socket with programmable pin functions
- 2 X 2/4-wire line connect (X2)
- Dual-redundant, speed controlled fans with remote alarms
- M80 and TRC line Signalling, Voting Tones, RSSI
- Local Encode/Decode, CTCSS, DCS and Selcall
- Transmission Timers
- Supports SRM9030 control head and engineering handset





SPECIFICATIONS

Team Simoco

1. General

Channel Bandwidth	12.5kHz(11K0F3EJN), 20kHz(14K0F3EJN) 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. R1: 335-375MHz. UH: 440-520MHz. * subject to availability
Stability	± 2.0ppm
Temperature	-25C to +55C Operating (Full Spec.) -40C to +80C Storage
Antenna Connect	2 x 50Ω female N-type
Environmental	IP20 ingress protection, Humidity <95% non-condensing
Inputs/Outputs	Engineer's handset (RJ45 – front panel) 2 x 2/4 wire line/audio interfaces (screw terminal) 2x line audio connections + E&M signalling (RJ45) Programmable facilities connector (37 way D-type) RS232 serial connection (9 way D) Ethernet IP interface (10baseT-RJ45) Power connector (5 Pin, 25 D-shell)
Supply Voltage	10.8 to 16.2V 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 433mm Wide x 430mm Deep (excluding cables)
~ (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 (20C; 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 0.3μV _{pd} for 12.5kHz chan. Data: typical FFSK performance for <10-2 BER (<20%MER): 0.3μV _{pd} – 1200 baud in 12.5kHz & 1200/2400 baud in 25 kHz, 0.5μV _{pd} – 2400 baud in 12.5kHz channel. [Ref: EN300-113-1:9.1]
Rx Current Consumption	Typical: 1.0A (20C; 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 additional information on this or any other Team Simoco product, visit our web site at: www.teamsimoco.com

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