

it's **SIMOCO**

## TSF2000 VHF/UHF BASE STATION



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

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

- High performance in 1RU height, 19" basestation series, TSF2025:1-25W cont, and TSF2100: 25-100W cont.
- High environmental specification.
- Transmit Duty Cycle 100%, Full Duplex.
- Modular construction for low MTTR.
- Rack or wall mounted.
- Microsoft Windows® based Programming Tool.
- DSP controlled, fully programmable.
- Five key PMR frequency bands covered (66-520MHz).
- Completely compatible with SRM9000 Series of Mobile Radios.
- In-built loudspeaker for audio monitoring.
- 37-way Facilities socket with programmable pin functions.
- Two 2/4-wire line connections.
- Dual-redundant, speed controlled fans with remote alarms.
- Line Signalling, Voting Tones, RSSI.
- Local Encode/Decode of CTCSS, DCS, Selcall tones (decode only).



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## SPECIFICATIONS

### General

Channel Bandwidth	12.5kHz, 20kHz or 25kHz selectable per channel
Modulation	Freq. F3E (voice) pre-emphasised/flat, or FFSK data (1200 or 2400bps)
Frequency Bands	EO: 66–88MHz      AC: 136–174MHz      R3: 335–400MHz TU: 400–480MHz      UW: 440–520MHz
Stability	±2.0 ppm
Temperature	–25°C to +55°C Operating (Full Spec.) –40°C to +80°C Storage
Antenna Connect	2 x 50W female N-type
Environmental	IP20 ingress protection, Humidity < non condensing
Inputs/Outputs	Engineer's handset (RJ45 – front panel) 2 x 2/4-wire line audio interfaces (screw terminal) 2 x line audio connections + E&M signalling (RJ45) Programmable facilities connector (37 way D-type) RS232 serial connection (9 way D) Power Connector (5 Pin, 25 D-shell)
Supply Voltage	10.8 to 16.2V DC negative earth (13.65V nominal)
Dimensions	44mm(1RU) High x 433mm Wide x 430mm Deep (Excluding Cables) 125mm High x 465mm Wide x 470mm Deep
– In wall mount	
Power Requirement	12VDC Nominal for 25W (additional 24V needed for 100W)
Weight	6.95 kg

### Transmitter

Transmit Power	1W to 25W(TSF2025) selectable per channel 25W to 100W (TSF2100) selectable per channel
Tx Current Consumption	25W @ 5.7A (Typical; 20°C, no 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 of 25kHz channel, 300 to 2550Hz on 12.5kHz channel
Intermodulation	>40dB (12.5kHz), 45dB (25kHz)
Hum and Noise	>40dB (12.5kHz), 45dB (25kHz)
Transmit Rise Time	<25mS

### Receiver

Sensitivity	Voice: 12dB SINAD for 0.3µV <sub>pd</sub> for 25kHz channel Data: typical FFSK performance for <10 <sup>-2</sup> BER (< 20%MER): 0.3µV – 1200 baud in 12.5kHz & 1200/2400 baud in 25kHz 0.5µV – 2400 baud in 12.5kHz channel
Rx Current Consumption	Typical:            1.0A (20°C; no Engineers Handset) Max:                1.55A (fans & audio on max plus Engineers Handset)
Selectivity	>73dB (25kHz), >63dB (12.5kHz)
Intermodulation	>70dB attenuation
Audio Response	±3dB of de-emphasised 300–2550Hz for 12.5kHz chan with CTCSS
Audio Output	2W <sub>rms</sub> internal monitor speaker
Distortion	<5%
Blocking	>95dB at ±1Mhz
Hum and Noise	>40dB (12.5kHz)

Local Dealer:

TSF2000

For additional information on this and other Simoco products visit our website:  
[www.simoco.com.au](http://www.simoco.com.au)