

TB7100
SPECIFICATIONS



RECEIVER	
Sensitivity	0.35µV (-116dBm) for 12dB SINAD
Intermodulation	25W: 70dB 40/50W: 75dB (typical)
Selectivity	
12.5kHz	68dB
20kHz	73dB
25kHz	75dB
Spurious Response	≤73dB
Ultimate Signal to Noise	36dB/38dB/40dB (NB/MB/WB)
Hum and Noise	
12.5kHz	-40dB
20kHz	-41dB
25kHz	-43dB

FCC AND IC ID			
Frequency Range	FCC Acceptance Number	FCC Part Number CRF47	IC Acceptance Number
66-88MHz	CASTBBA4A	22, 90	
136-174MHz	CASTBBB1A	22, 90	737A-TBBB1A
	CASTBBB1B	15, 22, 74, 90, 90.210	737A-TBBB1B
216-266MHz	CASTBBD1A	80, 90, 90T	
400-470MHz	CASTBBH5A	22, 90	737A-TBBH5A
	CASTBBH5B	22, 74, 90, 90.210, 95A	737A-TBBH5B
450-520MHz	CASTBBH7B	22, 74, 90, 90.210, 95A	
450-530MHz	CASTBBH6A	22, 90	737A-TBBH6A

Tait is your complete supplier of radio communications equipment offering mobile, portable and infrastructure solutions. Tait is renowned for its flexibility, responsiveness and commitment to producing innovative world-class mobile radio communications products.

Specifications are subject to change without notice and shall not form part of any contract. They are issued for guidance purposes only.

+Please note that not all frequency bands and power outputs are available in all markets. For further information please check with your nearest Tait office or authorized dealer.

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professional wireless communications

Head Office:
Emcom House,
1-5 Adrain Road,
Stamford Hill, Durban.
Tel: 031 312 9288
Fax: 031 312 9296

Johannesburg Office:
TransAfrica House,
10 Benmore Road,
Benmore, Johannesburg.
Tel: 011 086 6750
Fax: 011 086 6757

Website: www.emcom.co.za
Email: sales@emcom.co.za

TB7100
SPECIFICATIONS



Proven performance
and reliability.

The TB7100 is a compact, cost-effective base station/ repeater for use as a line-controlled base, talk through repeater, RF modem, data repeater or with TaitNet MPT 1327 trunked systems.



KEY FEATURES

- ▶ 100 channels with CTCSS and DCS sub-audible signaling
- ▶ Covers five key frequency bands from 66-80MHz
- ▶ Two digit LCD display
- ▶ Four programmable function keys
- ▶ Continuous duty at 25W, 40W (UHF) and 50W (VHF) power output
- ▶ Full duplex operation (when fitted with optional duplexer)
- ▶ Tone on idle and CWID
- ▶ Capable of operation at ambient temperatures of up to 140°F (60°C) and lowest -22°F (-30°C)
- ▶ Fans and heatsink designed to give 100 per cent transmit duty cycle
- ▶ Programmable fan operation
- ▶ Integral monitor speaker for audio testing
- ▶ 9-way RS232 serial data port
- ▶ 25-way system interface for connecting external equipment
- ▶ Low standby power consumption (140mA in economy mode, 25W)
- ▶ Rack or wall mounted



Conveniently compact

The only repeater on the market with optional internal power supply and internal duplexer in a slimline 1U format. This makes the TB7100 easy to transport and install; an ideal choice when space for your RF equipment is limited.

Ideal for single site coverage

A cost-effective repeater for single site applications such as industrial or campus sites, shopping malls, hotels, small taxi or bus fleets.

Variety of applications

Ideal for mine or industrial applications, ports and railway stations, building sites, security and maintenance services.

Data support

Supports both 12/19.2kbps Tait High Speed Data and 1200/2400 baud FFSK as standard. The TB7100 can be configured as a data repeater or RF modem and is fully compatible with the TM8000 range of mobile radio equipment.

GENERAL			
VHF	Band	Operational Frequency	Transmit Power
	A4	66-88MHz	25W
	B1	136-174MHz	25W, 50W
UHF	D1	216-266MHz	25W
	H5	400-470MHz	25W, 40W
	H6	450-530MHz	25W
	H7	450-520MHz	40W
Frequency Stability	±1.5ppm		
Channel/Network Capacity	100		
Channel Spacing	12.5/20/25kHz		
Channel Increment	7.5/12.5/15/20/25/30kHz		
Dimensions (WxDxH)	19 x 15.7 x 1.8in (483 x 400 x 43.5mm) 1U Rack Space		
Weight	13.2lb (6kg)		
Operational Temperature			
25W	-22° to 140°F (-30° to 60°C)		
40/50W	-22° to 122°F (-30° to 50°C)		
System Types	Full Duplex Voice TTR & LCR 1200 FFSK, 12K NB, 19K2 WB, THSD		
Data Types	FFSK, Tait High Speed Data		
Operational Data Modes	Transparent Mode		
DC Current	25W TB7100	40W TB7100	
	3.1A (5W)	4.9A (15W)	
	6.3A (25W)	8.2A (40W)	
	540mA	540mA	
	280mA	280mA	
Audio Input Types	Input	Output	
	600Ω Balanced	600Ω Balanced	
	Unbalanced	Unbalanced	
Audio Interface Level	Microphone	Monitor Speaker	
	Balanced -20 to +6dBm	Balanced -20 to +3dBm	
(for nominal 60% deviation)	Unbalanced 220μV-3Vpp	Unbalanced 220μV-3Vpp	
Audio Response Bandwidth	300Hz – 3kHz		
Audio Response	Flat or de-emphasized		
Audio Distortion	< 3% at 1kHz 60% deviation		
TRANSMITTER			
Output Power			
25W	25W, 12W, 5W, 1W		
40W UHF	40W, 20W, 15W, 10W		
50W VHF	50W, 25W, 15W, 10W		
Modulation Limiting			
12.5kHz	±2.5kHz		
20kHz	±4kHz		
25kHz	±5kHz		
FM Hum and Noise			
12.5kHz	-35dB		
20kHz	-39dB		
25kHz	-41dB		
Conducted/Radiated Emissions	-36dBm < 1GHz -30dBm > 1GHz		
Transmit Rise Time	10ms		