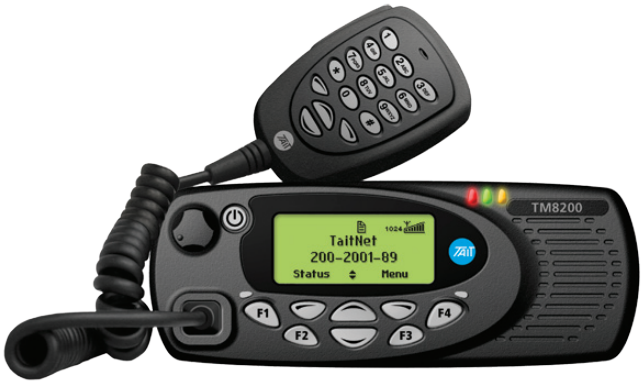
TM8255

SPECIFICATIONS



TM8255 DUAL MODE MOBILE RADIO

The TM8255 is a dual mode MPT 1327 trunked radio with full conventional feature set, ideal for a wide range of voice and data applications where comprehensive trunked services are required.

Intuitive interface

- Large LCD display - 14 characters and four lines of alphanumeric text
- User-friendly menu structure for easy navigation
- Four programmable function keys
- Optional keypad microphone for enhanced dialling capability

Flexible communications

- 1500 conventional channels with built-in CTCSS and DCS
- Data capable - supports 1200/2400 baud FFSK data as standard
- Internal high speed data modem (12 kbps on NB channels/19.2 kbps on WB channels) (software option)
- All MPT 1327 call types
- Multiple network capability - up to four different trunked networks
- Voice inversion scrambling
- Built-in MAP 27 interface as standard
- Supports short data messages and ANI
- Incoming calls can be queued for future reference and call back
- Lone Worker function to improve worker safety

Advanced system integration capabilities

- Multiple auxiliary ports and expansive internal options area
- Direct connect GPS and GPS display option

Fast switch between modes
Because the automated switch between trunked and conventional modes takes place in 1.5 seconds, precious time is saved in emergency situations.

Control head options
The remote head option allows the user to mount the TM8255 control head away from the radio body, allowing greater vehicle installation flexibility. The TM8255 also supports a dual control head configuration, allowing the radio to be shared with other users.

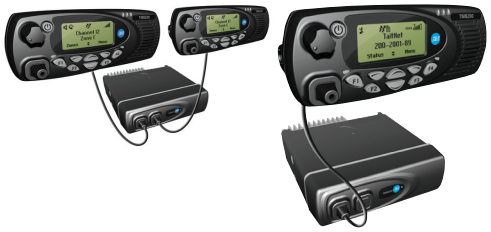
Engineered to be tough
The TM8255 meets stringent reliability specifications, including MIL-STD 810 C, D, E, F and IP54.

Software feature upgrades
The Software Feature Enabler (SFE) allows system operators to upgrade with additional functionality at any stage by simply purchasing the appropriate software license key.

Improved data integrity
The application of Digital Signal Processor (DSP) technology optimises RF performance and ensures fast and reliable data processing.

AVL support
The TM8255 supports a standard polling vehicle location format and a direct connect port for an external GPS receiver, allowing for the development of a complete AVL solution.

TM8255 Specifications



General

	Band	Operational Frequency	Transmit Power+
VHF	A4	66–88MHz	25W
	B1	136–174MHz	25W
	B1	136–174MHz	50W
	C0	174–225MHz	25W
	D1	216–266MHz	25W
UHF	G2	350–400MHz	40W
	H5	400–470MHz	25W
	H5	400–470MHz	40W
	H6	450–530MHz	25W
	H7	450–520MHz	40W

		Transmit	Receive	
700/800MHz	K5	762–776MHz	762–776MHz	
		792–825MHz		35W (>806MHz)
		850–870MHz	850–870MHz	30W (<806MHz)

Frequency Stability	±1.5ppm
Channel/Network Capacity	1500 Conventional Channels 300 Scan/Vote Groups 4 MPT 1327 Trunked Networks
Power Supply	10.8–16VDC
Channel Spacing	12.5/20/25kHz
Channel Increment	7.5/12.5/15/20/25/30kHz
Dimensions (DxWxH)	
25W	185 x 182 x 70mm (7.3 x 7.2 x 2.8in)
30/35/40/50W	205 x 182 x 70mm (8.1 x 7.2 x 2.8in)
Weight	
25W	1.4kg (49.4oz)
30/35/40/50W	1.6kg (56.4oz)
Operational Temperature	-30°C to +60°C (-22°F to +140°F)
Sealing	IP54
RF Connector	50 ohm BNC or Mini UHF
Interface Connectors	3 Interface Connectors with Serial Ports
Internal Speaker Output	>3W

Military Standards 810 F*

Applicable MIL-STD	Method	Procedure
Low Pressure	500.4	2
High Temperature	501.4	1, 2
Low Temperature	502.4	1, 2
Temperature Shock	503.4	1
Solar Radiation	505.4	1
Rain	506.4	1, 3
Humidity	507.4	1
Salt Fog	509.4	1
Dust	510.4	1
Vibration	514.5	1
Shock	516.5	1, 6

* ALSO MEETS EQUIVALENT SUPERSEDED MIL-STD 810 C, D & E.

Transmitter

	VHF/UHF (TIA/EIA)	700/800MHz (TIA/EIA)
Output Power		
25W	25W, 12W, 5W, 1W	
30W		30W, 15W, 5W, 2W
35W		35W, 15W, 5W, 2W
40W UHF	40W, 20W, 15W, 10W	
50W VHF	50W, 25W, 15W, 10W	
Modulation Limiting		
12.5kHz	±2.5kHz	±2.5kHz
20kHz	±4kHz	±4kHz
25kHz	±5kHz	±5kHz
FM Hum and Noise		
12.5kHz	-38dB	-33dB
20kHz	-41dB	-38dB
25kHz	-43dB	-40dB
Conducted/Radiated Emissions	-36dBm < 1GHz -30dBm > 1GHz	<-30dBm to 8GHz
Audio Response Bandwidth	300Hz–3kHz	300Hz–3kHz
Audio Response	Flat or pre-emphasised	Flat or pre-emphasised
Audio Distortion	< 3% at 1kHz 60% deviation	< 3% at 1kHz 60% deviation
Transmit Rise Time	20ms	20ms
Duty Cycle		
25W	33%	
30/35W		20%
40/50W	20%	

Receiver

	VHF/UHF (TIA/EIA)	700/800MHz (TIA/EIA)
Sensitivity	<-118dBm (0.28 µV) for 12dB SINAD	-120dBm (0.22µV) for 12dB SINAD <-116dBm (0.35µV) for 20dB SINAD
Intermodulation	75dB	82dB
Selectivity		
12.5kHz	65dB	67dB
20kHz	70dB	75dB
25kHz	75dB	79dB
Spurious Responses	75dB	> 90dB**
Hum and Noise		
12.5kHz	-40dB	-44dB
20kHz	-41dB	-47dB
25kHz	-43dB	-48dB
Audio Response Bandwidth	300Hz–3kHz	300Hz–3kHz
Audio Response	Flat or de-emphasised	Flat or de-emphasised
Audio Distortion	< 3% at 1kHz 60% deviation	< 3% at 1kHz 60% deviation

**Meets class A except 1/2 IF at bottom 4MHz of 700MHz sub-band (69dB) and TOP 4MHz of 800MHz sub-band (66dB).

ISO 9001
ISO 14001

All values quoted are typical. Specifications are subject to change without notice and shall not form part of any contract. They are issued for guidance purposes only. Some features are enabled but can depend on network deployed. + Please note that not all frequency bands and power outputs are available in all markets. For further information please check with your nearest Tait authorised dealer or at www.taitworld.com.

AUTHORISED DEALER

www.taitradio.com

SM8255-090909.00