

Rugged • Voice & Data • Integrator Friendly

TM8255 mobile

The Tait 8000 Series of innovative and high-performing products sets a standard of excellence for analogue radio communications technology. With advanced software-flexible features, 8000 Series products lead their class.

#### 25W Dual Mode Mobile Radio

- MPT 1327 Trunked
- Full Conventional Functionality
- Large Alphanumeric Display
- Intuitive and Easy-To-Use Menu Structure
- Wide Range of Trunked Features
- MAP27 Data Capable
- 1500 Conventional Channels, 300 Groups
- Robust RF Performance
- Rugged Construction to Strict Standards
- Digital Signal Processor Design



\*radio pictured with optional keypad microphone.

## TM8255 mobile

**The TM8255 mobile is rugged, reliable and easy to use – a true dual mode MPT 1327 trunked radio with a full conventional feature set, giving you everything you need for mobile team communications.**

It is an ideal solution for a wide range of voice and data applications where comprehensive trunked services are required – whether you run state-of-the-art transport networks or essential public safety or utility services.

Tait's latest TM8000 series mobile builds on the communications excellence of the high performance TM8250 conventional radio, with the addition of new dual mode trunked/conventional functionality.

The easy-to-use TM8255 enables you to work more efficiently in fast-changing situations, and you'll be safer in the knowledge that it will perform in the most challenging environments.

Customisation is easy with this radio, so you'll save on the cost of integration. New functionality can be added via software upgrade, lowering the cost of ownership and making the TM8255 an excellent long-term investment.



Remote control head option



Large LCD alphanumeric display



# TM8255 features & benefits

## Easy-to-read Display

The powerful TM8255 control head features a large alphanumeric display, providing clear message and channel information for users such as emergency response teams.

Alphanumeric labels can be programmed and viewed, and up to four lines of text and icons can be displayed. The TM8255 control head also features four function keys – program these for fast one-touch access to commonly used features.

## Intuitive Menu Structure

The TM8255 offers a comprehensive easy-to-use menu, allowing you to quickly navigate to all the radio's functions such as channel access, zones and display settings.

## Advanced System Integration Capabilities

The TM8255 has been designed with customisation in mind. System integrators have maximum design flexibility with multiple ports for auxiliary connectors and a large options board area. A range of comprehensive 3DK Developer's Kits provides hardware and software tools for customisation.

## Remote Control Head Option

This option enables the user to mount the TM8255 control head away from the radio body, allowing greater vehicle installation flexibility, particularly where there are space constraints.

## Robust RF Performance, Rugged Construction

The TM8255 has been developed using innovative RF design and includes a number of features to maintain operation, even under harsh conditions.

The radio has been engineered with a strong diecast metal chassis and almost entirely constructed using Surface Mount Technology (SMT). It is IP54 rated and meets stringent specifications for reliability including MIL-STD-810 C, D, E & F.

## MPT 1327 Trunked Features:

### Data Capable

The TM8255 has MAP27 interface as standard – no additional expensive hardware required. This makes the radio an effective building block for creating business solutions, utilising data over trunked networks.

Suited to the latest mobile data applications, the TM8255 supports 1200 baud FFSK data out-of-the-box and connects easily to external high speed modems using one of three interface points. The internal high speed data modem can be activated when the radio is in conventional mode.

### MPT 1343 Compatible

The TM8255 is fully MPT 1343 compatible and has MPT 1352 approval, enabling interoperability on trunked networks.

### Short Data Messages

This feature allows rapid exchange of simple, easy-to-enter messages such as "At Lunch" or "En-route", without the need for voice conversation.

## Automatic Number Identification (ANI)

The caller's identity number and status is displayed on your radio so you can easily identify who's calling.

## Call Queuing

The TM8255 can queue incoming calls for future reference and call back – an important feature for when you're away from your radio or unable to immediately answer a call.

## Enhanced Dialling Capabilities

An optional keypad microphone is offered with the TM8255, allowing the user to easily select channels, and make Selcall and DTMF calls. Calls can be made quickly without needing to scroll through preset call strings to find the required number. The keypad microphone is IP54 rated, so it is extremely well protected against harsh environments.

## Conventional Features:

- 1500 Conventional Channels
- 300 Scanning/Voting Groups
- Enhanced Selcall Functionality
- Fast Voting
- Address Book

## Optional Features:

- Keypad Microphone
- Locking Security Cradle
- Hands Free/Remote PTT
- Power Supply



## TM8255 specifications

### General

**Basic Description** Dual Mode Conventional/MPT 1327 Trunked Mobile Radio

**Frequency Range\***  
66–88MHz  
136–174MHz  
175–225MHz  
216–266MHz  
400–470MHz  
450–530MHz

**Frequency Stability** ±1.5ppm

**Channel/Network capacity**  
1500 Conventional Channels  
300 Scan/Vote Groups  
1 MPT 1327 Trunked Network

**Channel Spacing** 12.5/20/25kHz

**Channel Increment** 7.5/12.5/15/20/25/30kHz

**Power Supply** 10.8–16VDC

**Operational Temperature** -30°C to +60°C (-22°F to +140°F)

**Dimensions (LxWxH)**  
185mm x 182mm x 70mm  
(7.3in x 7.2in x 2.75in)

**Weight** 1.5kg (53oz)

**Sealing** Passes Dust and Rain testing to IP54

**RF Connector** 50 Ohm BNC

**Interface Connectors** 3 Interface Connectors with Serial Ports

### Military Standards 810F\*\*

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	3
Humidity	507.4	1
Salt Fog	509.4	1
Dust	510.4	1
Vibration	514.5	1
Shock	516.5	1 & 5

\*\*also meets equivalent superseded MIL-STD 810 C, D & E

### Transmitter

**Output Power** 25W, 10W, 5W, 1W

**Modulation Limiting**  
<±2.5kHz 12.5kHz  
<±4kHz 20kHz  
<±5kHz 25kHz

**FM Hum and Noise**  
>38dB 12.5kHz  
>41dB 20kHz  
>43dB 25kHz

**Conducted/Radiated Emissions**  
<-36dBm to 1GHz  
<-30dBm 1–4GHz below 500MHz  
<-30dBm 1–12.75GHz above 500MHz

**Audio Response**  
300Hz–3kHz  
Flat or pre-emphasised

**Audio Distortion** <3% at 1kHz 60% modulation

**Transmit Rise Time** <10ms

**Duty Cycle** 33% at 25W

### Receiver

**Sensitivity** <-118dBm for 12dB SINAD

**Intermodulation** >67dB

**Selectivity**  
>65dB 12.5KHz  
>70dB 20kHz  
>75dB 25kHz

**Spurious Responses** >72dB ETS

**Hum and Noise**  
>40dB 12.5kHz  
>41dB 20kHz  
>43dB 25kHz

**Audio Response**  
300Hz–3kHz  
Flat or de-emphasised

**Audio Distortion** <3% at 1kHz 60% modulation

\*not all frequencies are available in all markets.

Authorised Dealer

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