Rugged • High Speed Data • Integrator Friendly

TM8250 mobile

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

1500 Channel Conventional Mobile Radio •
Large Alphanumeric Display •
26 Zones/Channel Banks •
Intuitive and Easy-To-Use Menu Structure •
Robust RF Performance •
Rugged Construction to Strict Standards •
Digital Signal Processor Design •
Remote Control Head Option •
Keypad Microphone Option •

Tait radio
communications

NEW HIGH
POWER OPTIONS
40W UHF & 50W VHF

Channel 12
Zone C
Zones ⬍ Menu

F1 F2 F3 F4

TM8200

Tait

TM8250 mobile

When rugged, reliable and easy-to-use communications are essential to your business and you need to respond clearly and immediately in mission-critical situations, the Tait TM8250 conventional mobile radio is the ideal solution.

The robust, high performance TM8250 mobile radio is the ultimate choice for fast-moving mobile teams such as emergency services or transport fleets, who rely on instant voice and data communications to keep in touch.

The easy-to-use alphanumeric display and keypad, and intuitive menu structure mean users can quickly view information and access the radio's functions in fast-changing situations – whether you're a police officer in a high-speed pursuit or a truck driver responding to an urgent dispatch job.

With excellent RF performance, rugged design and advanced Digital Signal Processor (DSP) technology, you can trust the TM8250 mobile radio to perform in any situation.

remote control head option

large LCD alphanumeric display

Features

Easy-to-Use Display and User Interface
The powerful TM8250 control head features a large LCD display, providing a high level of information for users such as emergency response teams who need dependable communications to stay in control in demanding situations.

Users can clearly and concisely view channel information, including text and icons, through this enhanced user display. Industry-standard 14 character alphanumeric labels can be programmed and viewed, and up to four lines of text and icons can be displayed, with icons including a signal strength indicator and power output indicator.

The TM8250 control head also features four function keys that can be programmed for fast one-touch access to commonly used features.

Intuitive Menu Structure
The TM8250 offers a comprehensive user-friendly menu to allow easy navigation to all the radio functions such as channel access, zones and display settings.

1500 Conventional Channels
Greater channel capacity in the TM8250 makes the radio suitable for large radio system applications such as wide area transport services, where many channels are used to provide signal coverage.

Enhanced Dialing Capabilities
An optional keypad microphone is offered with the TM8250, 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.

Remote Control Head Option
This option enables the user to mount the TM8250 control head away from the radio body, allowing greater vehicle installation flexibility, particularly where there are space constraints. The remote control head can be mounted up to six meters away from the radio and like all TM8000 radios, maintains ingress protection to the IP54 standard.

Robust RF Performance
The TM8250 has been developed using innovative RF design and includes a number of innovative features to maintain operation, even under harsh conditions. For example, when unusually high transmitter temperatures are detected, the radio reduces the power output so operation can be maintained.

Rugged Construction
Engineered with a strong diecast metal chassis and almost entirely constructed using Surface Mount Technology (SMT), the TM8250 meets stringent specifications for reliability including MIL-STD-810 C, D, E & F specs and IP54.

High Speed Data Capability
Suited to the latest mobile data applications, the TM8250 supports 1200 baud FFSK data out-of-the-box. An internal high speed data modem can be activated with a software key, or external high speed modems can be connected using one of three interface points into the radio.

Advanced System Integration Capabilities
The TM8250 has been designed with customization in mind. System integrators have maximum design flexibility with multiple ports for auxiliary connectors and a large options board area. A comprehensive range of 3DK Developer's Kits provides hardware and software tools for customization.

Standard Features:
- 1500 Conventional Channels
- 300 Scanning/Voting Groups
- 26 Channel Zones/Banks
- Built-in CTCSS/DCS
- Enhanced Selcall Functionality
- Fast Voting
- Emergency Mode, Stun and Revive
- Numeric ANI
- AVL Software Support
- DTMF Encode
- Two Tone Decode
- Built-in Loudspeaker
- VOX Capable
- Voice Inversion Scrambling

Optional Features:
- Keypad Microphone
- Remote Control Head Installation
- Hands Free/Remote PTT
- Locking Security Cradle

TAIT radio communications

TM8250 Specifications

General

Frequency Range	High Power	Standard
	136-174MHz	136-174MHz
		216-266MHz
	400-470MHz	400-470MHz
	450-520MHz	450-530MHz

Frequency Stability	+/-1.5ppm Above 100MHz
Channel Capacity	1500 Conventional Channels 300 Scan/Vote Groups
Power Supply	10.8-16VDC
Channel Spacing	12.5/20/25kHz
Channel Increment	7.5/12.5/15/20/25/30kHz

Dimensions (LxWxH)	High Power	Standard
	8.1 x 7.2 x 2.8in	7.3 x 7.2 x 2.8in
	(205 x 182 x 70mm)	(185 x 182 x 70mm)

Weight	59oz (1.7kg)	53oz (1.5kg)
Operational Temperature	-22°F to +140°F (-30°C to +60°C)	
Sealing	Passes dust and rain testing to IP54	
RF Connector	50 Ohm BNC/Mini UHF	
Interface Connectors	3 Interface Connectors with Serial Ports	

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	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	50W VHF Model: 50W, 25W, 15W, 10W 40W UHF Model: 40W, 20W, 15W, 10W 25W Model: 25W, 10W, 5W, 1W
Modulation Limiting	+/-2.5kHz 12.5kHz +/-4kHz 20kHz +/-5kHz 25kHz
FM Hum and Noise	-38dB 12.5kHz -43dB 25kHz
Conducted/Radiated Emissions	-36dBm to 1GHz -30dBm above 1GHz
Audio Response	300Hz-3kHz Flat or pre-emphasized
Audio Distortion	3% at 1kHz 60% modulation (typical)
Transmit Rise Time	10ms
Duty Cycle	20% at 40/50W – 33% at 25W

Receiver

Sensitivity	0.28µV for 12dB SINAD (<-118dBm)
Intermodulation	75dB
Selectivity	65dB 12.5kHz 70dB 20kHz 75dB 25kHz
Spurious Responses	72dB
Hum and Noise	-40dB 12.5kHz -43dB 25kHz
Audio Response	300Hz-3kHz Flat or de-emphasized
Audio Distortion	3% at 1kHz 60% modulation (typical)

Tait is your complete supplier of radio communications equipment, with 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. For further information please check with your nearest Tait office or authorized dealer.

Tait Electronics Ltd is an ISO9001:2000 and ISO 14001:1996 certified supplier.