

Flexible, reliable and user friendly.

With its hand-held control head, the TM8254 saves space and is fast and easy to install. It improves fleet and team effectiveness by placing vehicle communications into the hands of the user.



KEY FEATURES

- ▶ Large LCD display – four lines of alphanumeric text
- ▶ Six programmable function keys and alphanumeric keypad
- ▶ 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
- ▶ Multiple auxiliary ports and expansive internal options area
- ▶ Direct connect GPS and GPS display option



Custom lenses allow easy identification of multiple radios in the same vehicle+

FEATURES AND BENEFITS

Mobile radio in the palm of your hand

The TM8254's hand-held control head allows the angle and distance of the display to be positioned by the user for more accurate communication. Several remote mounting options provide greater installation flexibility, ideal for situations where space is a limiting factor.

Flexible installation

The hand-held control head is ideal for covert installations. The optional break-out box and remote kit mean that the TM8254 can be located in the rear of the vehicle.

Engineered to be tough

The TM8254 and its hand-held control head meet stringent reliability specifications, including MIL-STD 810 C, D, E, F and IP54. These standards ensure performance and reliability are never compromised.

AVL support

The TM8254 supports a standard polling vehicle location format and has a direct connect port for an external GPS receiver, allowing for the development of a complete AVL solution.

Fast switch between modes

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

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	
	700/800MHz	K5	Transmit	Receive	30W (<806MHz) 35W (>806MHz)
			762–776MHz	762–776MHz	
792–825MHz 850–870MHz			850–870MHz		
900MHz	L3	896–941MHz	935–941MHz	30W	
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 (WxDxH)	25W				
	30/35/40/50W				
Weight	7.3 x 7.2 x 2.8in (185 x 182 x 70mm)				
	30/35/40/50W				
Operational Temperature	49.4oz (1.4kg)				
	56.4oz (1.6kg)				
Sealing	-22°F to +140°F (-30°C to +60°C)				
RF Connector	IP54				
Interface Connectors	50 ohm BNC or Mini UHF				
Speaker Output	3 Interface Connectors with Serial Ports				
	Supplied with 10W external speaker				

TRANSMITTER

	VHF/UHF (TIA/EIA)	700/800MHz (TIA/EIA)
Output Power	25W, 12W, 5W, 1W	
		30W, 15W, 5W, 2W
		35W, 15W, 5W, 2W
	40W UHF	40W, 20W, 15W, 10W
	50W VHF	50W, 25W, 15W, 10W
Modulation Limiting	±2.5kHz	±2.5kHz
	±4kHz	±4kHz
	±5kHz	±5kHz
FM Hum and Noise	-38dB	-33dB
	-41dB	-38dB
	-43dB	-40dB
Conducted/Radiated Emissions	-36dBm < 1GHz	< -30dBm to 8GHz
	-30dBm > 1GHz	
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	33%	
		20%
	20%	

RECEIVER**

	VHF/UHF (TIA/EIA)	700/800MHz (TIA/EIA)
Sensitivity	0.28µV (<-118dBm) for 12dB SINAD	0.22µV (-120dBm) for 12dB SINAD 0.35µV (<-116dBm) for 20dB SINAD
Intermodulation	75dB	82dB
Selectivity		
12.5kHz	65dB	67dB
20kHz	70dB	75dB
25kHz	75dB	79dB
Spurious Response	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-emphasized	Flat or de-emphasized
Audio Distortion	< 3% at 1kHz 60% deviation	< 3% at 1kHz 60% deviation

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

REGULATORY DATA

	Frequency	FCC Description	IC Description
25W	136-174	CASTMAB1C	737A-TMAB1C
	216-266	CASTMAD1C	
	400-470	CASTMAH5C	737A-TMAH5C
	450-530	CASTMAH6C	737A-TMAH6C
30W	896-941	CASTMAL3D	737A-TMAL3D
35W	806-869	CASTMAK5D	737A-TMAK5D
40W	400-470	CASTMAH5D	
	450-520	CASTMAH7D	
50W	136-174	CASTMAB1D	



* Also meets equivalent superseded MIL-STD 810 C, D & E.

** Meets class A except where indicated.

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

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

*Contact your local Tait representative for more information.

For further information please check with your nearest Tait office or authorized dealer.

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Tait International Limited facilities are certified for ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and B: OHSAS 18001:2007 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. In addition, all our Regional Head Offices are certified to ISO 9001.

