Flexible, reliable and user friendly.

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.

KEY FEATURES

▸ 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 dialing capability

▸ 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 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

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 exceeds 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 optimizes 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.

GENERAL

	Band	Operational Frequency		Transmit Power
VHF	A4	66–88MHz		25W
	B1	136–174MHz		25W
	B1	136–174MHz		50W
	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	30W (<806MHz)
		792–825MHz		35W (>806MHz)
		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 (DxWxH)
    25W
    30/35/40/50W
	
	7.3 x 7.2 x 2.8in (185 x 182 x 70mm)
	8.1 x 7.2 x 2.8in (205 x 182 x 70mm)

Weight
    25W
    30/35/40/50W
	
	49.4oz (1.4kg)
	56.4oz (1.6kg)

Operational Temperature	-22°F to +140°F (-30°C to +60°C)
Sealing	IP54
RF Connecter	50 ohm BNC or Mini UHF
Interface Connecters	3 Interface Connecters with Serial Ports

TRANSMITTER

	VHF/UHF (TIA/EIA)	700/800MHz (TIA/EIA)

Output Power
    25W
    30W
    35W
    40W UHF
    50W VHF
	
	25W, 12W, 5W, 1W
	
	40W, 20W, 15W, 10W
	50W, 25W, 15W, 10W
		
		30W, 15W, 5W, 2W
		35W, 15W, 5W, 2W

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

FM Hum and Noise
    12.5kHz
    20kHz
    25kHz
	
	-38dB
	-41dB
	-43dB
		
		-33dB
		-38dB
		-40dB

Conducted/Radiated Emissions	-36dBm < 1GHz -30dBm > 1GHz	<-30dBm to 8GHz
Audio Response Bandwidth Audio Response	300Hz–3kHz Flat or pre-emphazised	300Hz–3kHz Flat or pre-emphazised
Audio Distortion	< 3% at 1kHz 60% deviation	< 3% at 1kHz 60% deviation
Transmit Rise Time	20ms	20ms

Duty Cycle
    25W
    30/35W
    40/50W
	
	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 20kHz 25kHz	 65dB 70dB 75dB	 67dB 75dB 79dB
Spurious Responses	75dB	> 90dB***
Hum and Noise 12.5kHz 20kHz 25kHz	 -40dB -41dB -43dB	 -44dB -47dB -48dB
Audio Response Bandwidth Audio Response	300Hz–3kHz Flat or de-emphazised	300Hz–3kHz Flat or de-emphazised
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	136-174 216-266 400-470 450-530	CASTMAB1C CASTMAD1C CASTMAH5C CASTMAH6C	737A-TMAB1C 737A-TMAH5C 737A-TMAH6C
35W	806-869	CASTMAK5D	737A-TMAK5D
40W	400-470 450-520	CASTMAH5D CASTMAH7D	
50W	136-174	CASTMAB1D	

Authorized Partners

* 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).

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.

ISO 9001
ISO 14001

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