TM9155

SPECIFICATIONS

TM9155 P25 Mobile radio shown in optional dual head configuration

P25 TRUNKED AND CONVENTIONAL MOBILE RADIOS

With recognised encryption testing, certified interoperability, digital audio clarity and superb build quality the TM9155 is a tough, dependable and sophisticated mobile radio.

Secure, interoperable, flexible

- FIPS 140-2 certified encryption
- Tested in an industry-approved (Department of Homeland Security) P25 Compliance Assessment Program (P25 CAP) lab for interoperability and performance
- Radios can be used on analogue, P25 conventional, trunked and simulcast networks
- Simplified System Key prevents 'unregistered' radios from being added to the network without prior consent
- Custom head colours, lenses and keypad graphics can simply differentiate multiple radios in a vehicle
- Secondary concealed microphone in control head
- Tested beyond MIL-STD 810C, D, E and F
- High temperature display option optimises screen visibility in hot environments
- Lat/long coordinates displayed on screen (requires GPS receiver and SFE*)
- Program 1,000 channels, 300 scan groups and 30 tactical zones
- Comprehensive scanning features including P25 talk-group, priority, dual priority and editable scanning
- An extensive range of analogue signalling features - MDC1200 encode/decode** and Two Tone decode with the purchase of SFEs*

*Software Feature Enabler option available separately
**MDC1200 decode includes calling identity display, and inhibit/uninhibit functionality

Encryption for secure communications
AES encryption certified by the US National Institute of Technology and Standards (NIST) or proven DES encryption can be incorporated into the TM9155 for highly secure communications. These radios can be encrypted fast in-field with a Key Fill Device (KFD) or with Over-The-Air-Rekeying (OTAR) via a Key Management Facility (KMF)*.

Flexible choices
Optional dual head configuration means the TM9155 can dynamically respond to vehicle and user needs.

Interoperability assured
The TM9155 is tested on other vendors' networks as part of the P25 Compliance Assessment Program (P25 CAP). This offers public safety and government agencies a multi-vendor environment which can save taxpayers' money.

Analogue operation for phased transition
Protect your current analogue investment and migrate to P25 at your own pace. Analogue mode allows communication between various partner agencies.

Configure to suit with SFEs
Software Feature Enablers (SFEs) allow a solution that is readily extended as needs change, removing the risk of hardware upgrades and factory returns. Trunking, P25 CAI, encryption, Application Programming Interfaces (APIs) and OTAR are just some of the SFE options available.

*For further information on the KMF, please contact your local Tait representative

TM9155 Specifications

Standard control head with keypad microphone

Local hand-held control head

Dual head configuration with STN LCD for use in warmer climates

Dual head configuration with FSTN LCD for use in cooler climates
(a Control Head Interface Box is requried)

Remote mounted standard control head

110W mobile

Being a manufacturer of digital and analogue radios, base stations and network equipment means Tait has the solution focus to serve you better. Tait's P25 portables, mobiles and the hand-held control head all share the same intuitive interface.

Regulatory Data

USA	**VHF**	CFR 47 Parts 22, 90.210, 74, 90, 95		
	UHF	CFR 47 Parts 22, 90.210, 74, 95A, 90		
	800MHz	CFR 47 Parts 22, 90		
Canada		RSS-119		
Europe		EN300 086, EN300 113 EN301 489 EN60950		
Australia/New Zealand		AS/NZ54295		
Type Approval		**FCC**	**Industrie Canada**	**NTIA**
25W	**VHF**	CASTMAB1E	737A–TMAB1E	
	UHF	CASTMAH5E	737A–TMAH5E	
		CASTMAH6E	737A–TMAH6E	
30/35W	**UHF**	CASTMAK5F	737A–TMAK5F	
40W	**UHF**			350-400MHz** 380-420MHz**
		CASTMAH5F	n/a	
		CASTMAH7F	n/a	
50W	**VHF**	CASTMAB1F	n/a	136-174MHz**
110W (ERFPA)	**VHF**	CASTMAB1Z	n/a	
Emission Designators		10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K7F1D 16K0F3E, 6K60F2D, 7K70F1D 8K10F1D, 8K10F1E, 8K10F7D 8K10F7E, 9K60F2D		

TELARC SAI registered

ISO 9001
ISO 14001

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AUTHORISED DEALER

www.taitradio.com

General

Frequency Ranges	**Frequency Band+**		**Transmit Power**	**Transmit Current**
VHF	136–174MHz		25W	<5.5A
	136–174MHz**		50W	<10.5A
	136–174MHz		110W	<30A
UHF	350–400MHz**		40W	<8.5A
	380–420MHz**		40W	<8.5A
	400–470MHz		25W	<6.5A
	400–470MHz		40W	<8.5A
	450–530MHz		25W	<6.5A
	450–520MHz		40W	<8.5A
700/800MHz	Transmit	Receive		
	762–776MHz	762–776MHz		
	792–825MHz		30W (<806MHz)	<10A
	850–870MHz	850–870MHz	35W (>806MHz)	<10A

Frequency Stability	±1.5ppm (-30ºC to 60ºC/-22ºF to 140ºF)
Channel /Talk-groups/Zones	1000 channels/26 talk-group lists x 50 members/30 zones
Power Supply	10.8–16VDC
Channel Spacing	12.5/15/20/25/30kHz
Frequency Increment/Channel Steps	2.5/5/6.25
Dimensions (DxWxH) Standard Control Head	35 x 184 x 71mm (1.38 x 7.24 x 2.8in)
Dimensions (DxWxH) Radio Body	
25W	175 x 160 x 52mm (6.9 x 6.3 x 2.1in)
30/35/40/50W	195 x 160 x 52mm (7.7 x 6.3 x 2.1in)
110W	370 x 250 x 121mm (14.6 x 9.8 x 5in)
Weight Standard Control Head	330g (11.6oz)
Weight Radio Body	
25W	1200g (42.3oz)
30/35/40/50W	1400g (49.4oz)
110W	8400g (296oz)
Operational Temperature	-30ºC to 60ºC (-22ºF to 140ºF)
Sealing	IP54 dust and rain
RF Connector	50 ohm BNC or Mini UHF
Interface Connectors	3 Interface Connectors with Serial Ports

Military Standards 810F*

Applicable MIL-STD	**Method** 25/30/35/50/110W	**Procedure** 25/30/35/50W	**Procedure** 110W
Low Pressure	500.4	2	2
High Temperature	501.4	1, 2	2
Low Temperature	502.4	1, 2	2
Temperature Shock	503.7	1	1
Solar Radiation	505.4	1	–
Rain	506.4	1, 3	3
Humidity	507.4	1	–
Salt Fog	509.4	1	1
Dust	510.4	1	1
Vibration	514.5	1	1
Shock	516.5	1, 6	6

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

Transmitter

	VHF/UHF (TIA/EIA 102 and 603a)	**700/800MHz (TIA/EIA 102 and 603a)**
Output Power		
25W	25W, 12W, 5W, 1W	
30W		30W, 15W, 5W, 2W
35W		35W, 15W, 5W, 2W
40W	40W, 20W, 15W, 10W	
50W	50W, 25W, 15W, 10W	
110W	110W	
Modulation Limiting		
25/30kHz channel	±5kHz	±5kHz
12.5kHz channel	±2.5kHz	±2.5kHz
FM Hum & Noise		
25/30kHz channel	-43dB	-40dB
12.5kHz channel	-38dB	-33dB
Conducted Emissions	-85dBc	-75dBc
Audio Response (Analogue)	300–3000Hz +1/-3dB	
Audio Distortion	< 3% at 1kHz 60% deviation	
Transmit Attack Time (TIA/EIA 102)	50mS	

Receiver

Analogue Sensitivity	**VHF/UHF**	**VHF 50W**	**VHF 110W**	**700/800MHz**
12dB SINAD	-118dBm (0.28µV)	-117dBm (0.315µV)	-119dBm (0.25µV)	-118dBm (0.28µV)
Digital Sensitivity (TIA/EIA-102) 5%BER	-121dBm (0.20µV)	-120dBm (0.233µV)	-122dBm (0.18µV)	-122dBm (0.18µV)
Intermodulation Rejection (TIA/EIA 102)	-75dB	-75dB	-70dB	-75dB
Adjacent Channel Selectivity				
25/30kHz channel (TIA/EIA 603a)	-75dB	-80dB	-75dB	-75dB
12.5kHz channel (TIA/EIA 102)	-65dB	-70dB	-65dB	-65dB
Spurious Response Rejection	-75dB	-90dB	-70dB	-75dB
FM Hum & Noise				
25/30kHz channel	-43dB	-43dB	-43dB	-43dB
12.5kHz channel	-40dB	-40dB	-40dB	-40dB
Residual Audio Noise Ratio	45dB	45dB	45dB	45dB
Audio Distortion @ Rated Audio	3% @ 1kHz 60% modulation (typical)			

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 are available in all markets. For further information please check with your nearest Tait office or authorised dealer.

**Tait confirms that this product model conforms with NTIA requirements.

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