



# TM9155

SPECIFICATIONS



TM9155 P25 Mobile radio shown in optional dual head configuration

## P25 TRUNKED AND CONVENTIONAL MOBILE RADIOS

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

### Interoperable, flexible, configurable

- FIPS 140-2 certified encryption
- Tested in DHS-approved P25 Compliance Assessment Program (P25 CAP) lab for interoperability and performance
- Radios can be used on analog, P25 conventional, trunked and simulcast networks
- Simplified System Key prevents 'unregistered' radios from being added to the network without prior consent
- Custom head colors, 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 optimizes 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 analog signaling 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.

### Analog operation for phased transition

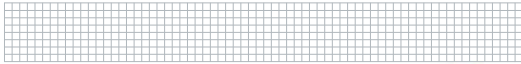
Protect your current analog investment and migrate to P25 at your own pace. Analog mode allows communication between various partner agencies.

### 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





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 required)



Remote mounted standard control head



110W mobile

Being a manufacturer of digital and analog 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

Country	Frequency	Regulatory Reference
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
25W	VHF	CASTMAB1E 737A-TMAB1E
	UHF	CASTMAH5E 737A-TMAH5E
30/35W	VHF	CASTMAH6E 737A-TMAH6E
	UHF	CASTMAK5F 737A-TMAK5F
40W	UHF	350-400MHz**
		380-420MHz**
50W	VHF	CASTMAH5F n/a
		CASTMAH7F n/a
110W (ERFPA)	VHF	CASTMAB1F n/a
		CASTMAB1Z n/a
Emission Designators		10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K7F1D, 16K0F3E, 6K60F2D, 7K70F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 9K60F2D



ISO 9001  
ISO 14001



FIPS logo is a Certification Mark of NIST, which does not imply product endorsement by NIST, the U.S. or Canadian Governments.

AUTHORIZED DEALER

www.taitradio.com

# TM9155 Specifications

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 762-776MHz 792-825MHz 850-870MHz	Receive 762-776MHz 850-870MHz	30W (<806MHz) 35W (>806MHz)	<10A <10A
Frequency Stability	±1.5ppm [-22°F to 140°F/-30°C to 60°C]			
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) Control Head	1.38 x 7.24 x 2.8in (35 x 184 x 71mm)			
Dimensions (DxWxH) Radio Body	6.9 x 6.3 x 2.1in (175 x 160 x 52mm) 7.7 x 6.3 x 2.1in (195 x 160 x 52mm) 14.6 x 9.8 x 5in (370 x 250 x 121mm)			
Weight Control Head	11.6oz (330g)			
Weight Radio Body	42.3oz (1200g) 49.4oz (1400g) 296oz (8400g)			
Operational Temperature	-22°F to 140°F [-30°C to 60°C]			
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	Procedure	Procedure
25/30/35/50/110W		25/30/35/50W	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, 12W, 5W, 1W	30W, 15W, 5W, 2W 35W, 15W, 5W, 2W
25W		
30W		
35W		
40W	40W, 20W, 15W, 10W	
50W	50W, 25W, 15W, 10W	
110W	110W	
Modulation Limiting	±5kHz	±5kHz
25/30kHz channel	±2.5kHz	±2.5kHz
12.5kHz channel		
FM Hum & Noise	-43dB	-40dB
25/30kHz channel	-38dB	-33dB
12.5kHz channel		
Conducted Emissions	-85dBc	-75dBc
Audio Response (Analog)	300-3000Hz +1/-3dB	
Audio Distortion	< 3% at 1kHz 60% deviation	
Transmit Attack Time (TIA/EIA 102)	50ms	

### Receiver

	VHF/UHF	VHF 50W	VHF 110W	700/800MHz
Analog Sensitivity	0.28µV (-118dBm)	0.315µV (-117dBm)	0.25µV (-119dBm)	0.28µV (-118dBm)
12dB SINAD				
Digital Sensitivity (TIA/EIA-102)	0.20µV (-121dBm)	0.233µV (-120dBm)	0.18µV (-122dBm)	0.18µV (-122dBm)
5%BER				
Intermodulation Rejection (TIA/EIA 102)	-75dB	-75dB	-70dB	-75dB
Adjacent Channel Selectivity	-75dB	-80dB	-75dB	-75dB
25/30kHz channel (TIA/EIA 603a)	-65dB	-70dB	-65dB	-65dB
12.5kHz channel (TIA/EIA 102)				
Spurious Response Rejection	-75dB	-90dB	-70dB	-75dB
FM Hum & Noise	-43dB	-43dB	-43dB	-43dB
25/30kHz channel	-40dB	-40dB	-40dB	-40dB
12.5kHz channel				
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 authorized dealer.

The word "Tait" and the Tait logo are trademarks of Tait Electronics Ltd. Tait is an ISO 9001: 2008 and ISO 14001: 2004 certified supplier.

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