



TM9155

SPECIFICATIONS



TM9155 P25 Mobile radio shown with keypad microphone

P25 TRUNKED AND CONVENTIONAL MOBILE RADIOS

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

Interoperable, flexible, configurable

- Commercially upgradeable to P25 Phase 2
- Tested in Department of Homeland Security-recognized P25 Compliance Assessment Program (P25 CAP) lab for interoperability and performance
- Radios can be used on analog, P25 conventional, trunked and simulcast networks
- FIPS 140-2 certified encryption
- Tait Advanced System Key prevents 'unregistered' radios from being added to the network without prior consent*
- Tested beyond MIL-STD-810C, D, E and F
- A range of analog signaling features - MDC1200 encode/decode** and Two Tone decode with the purchase of software licenses***
- Comprehensive scanning features including P25 talk-group, priority, dual priority and editable scanning
- Custom head colors, lenses and keypad graphics can differentiate multiple radios in a vehicle
- High temperature display option optimizes screen visibility in hot environments
- Lat/long coordinates displayed on screen (requires GPS receiver and software licenses*)
- User interface is common with the Tait P25 portables for ease of use

*Please contact your local Tait representative for more information

**MDC1200 decode includes calling identity display and inhibit/uninhibit functionality

***Software license option(s) available separately

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 Tait Key Fill Device (KFD) or via Over-The-Air Rekeying (OTAR) with 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.

Analog operation for phased transition

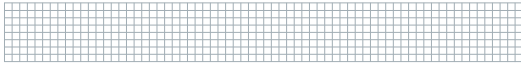
Protect your current analog investment and migrate to P25 digital at your own pace. Analog mode allows communication between various partner agencies.

Configure to suit with software licenses

Software licenses allow a solution that is readily extended as needs change, removing the risk of hardware upgrades and factory returns. Trunking, P25 CAI, encryption, location transmission/display*, Application Programming Interfaces (APIs) and OTAR are just some of the software license options available.

*Please contact your local Tait representative for more information





Remote mounted standard control head



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)

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

USA	VHF UHF 800MHz	CFR 47 Parts 22, 90.210, 74, 90, 95 CFR 47 Parts 22, 90.210, 74, 95A, 90 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 UHF	CASTMAB1E 737A-TMAB1E CASTMAH5E 737A-TMAH5E CASTMAH6E 737A-TMAH6E CASTMAK5F 737A-TMAK5F	
30/35W	UHF		
40W	UHF		350-400MHz* 380-420MHz*
50W	VHF	CASTMAH5F n/a CASTMAH7F 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	

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.

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

**Receiver preamplifier installed.

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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 (typical)
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
700/800MHz	Transmit		
	762-776MHz 792-825MHz 850-870MHz	Receive 762-776MHz 850-870MHz	30W (<806MHz) 35W (>806MHz)
Frequency Stability	±1.5ppm (-22°F to 140°F/-30°C to 60°C)		
Channel/Zones	1,000 channels/30 zones		
Talk-groups	26 talk-group lists comprised of up to 50 members each		
Scan Groups	300 with up to 50 members each, maximum of 2,000 members total		
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	25W 30/35/40/50W 110W		
Weight Control Head	11.6oz (330g)		
Weight Radio Body	25W 30/35/40/50W 110W		
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		
Analog Signaling Options	MDC1200 encode/decode, Two Tone decode, PL (CTCSS), DPL (DCS)		

Military Standards 810 C, D, E and F

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	503.4	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

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 (typical)		
25/30kHz channel	-43dB	-40dB
12.5kHz channel	-38dB	-33dB
Conducted Emissions (typical)	-85dBc	-75dBc
Audio Response (Analog)	300-3000Hz +1/-3dB	
Audio Distortion	< 3% at 1kHz 60% deviation	
Transmit Attack Time (TIA/EIA 102)	50ms	

Receiver (typical figures shown)

	VHF/UHF	VHF 50W	VHF 110W	700/800MHz
Analog Sensitivity				
12dB SINAD	0.28µV (-118dBm)	0.315µV (-117dBm)	0.25µV (-119dBm)	0.28µV (-118dBm)
Digital Sensitivity (TIA/EIA-102)				
5%BER	0.22µV (-120dBm)	0.233µV (-120dBm)	0.18µV (-122dBm)**	0.18µV (-122dBm)
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 (3W)	3% @ 1kHz 60% modulation			
Optional External Speaker Output	10W (into 4Ω)			