TM9135
SPECIFICATIONS

Tough, reliable and interoperable.

TM9135 mobile radios provide affordable and reliable digital communications for Public Safety users who need exceptional audio clarity without provision for all possible features or configurations.

KEY FEATURES

- Radios can be used on analog, P25 conventional, trunked and simulcast networks
- Out of the box and onto the shift - the TM9135 is a radio designed for fast integration onto a digital network (the P25 CAI is included)
- Hand-held control head (HHCH) option
- Ease of operation: all user controls and menu functions are identical across all the Tait P25 portables, mobiles and HHCHs
- Tested beyond MIL-STD-810C, D, E and F
- Supports individual, group, broadcast and emergency calls
- Advanced voting optimizes channel reception
- User programmable scan
- Comprehensive scanning features including P25 talk group, priority, dual priority and editable scanning

Above left: Colored TM9135 HHCHs shown in red, green and yellow.
Please contact your local Tait representative for more information on color options.

Tait Tough radio

Reliable and durable TM9135 mobile radios have been built to withstand the extremes of nature.

A high temperature display option on Tait mobiles optimizes screen visibility in hot environments.

Interoperability assured

Genuine open standards ensure choice, value and responsiveness during routine operations or crises.

Digital audio clarity

Crystal clear digital audio allows precise communication even in noisy situations.

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 signaling options including MDC1200 encode/decode and Two Tone decode.*

*A separately enabled option.

Tailored functionality

This radio will provide the essential network performance required by Public Safety users who need exceptional audio clarity without provision for all possible features or configurations.

For more advanced functionality users should consider investing in the TM9155 for long term flexibility.

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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
	450–530MHz		25W	<6.5A
	450–520MHz		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 (-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	6.9 x 6.3 x 2.1in (175 x 160 x 52mm)			
30/35/40/50W	7.7 x 6.3 x 2.1in (195 x 160 x 52mm)			
110W	14.6 x 9.8 x 5in (370 x 250 x 121mm)			
Weight control head	11.6oz (330g)			
Weight radio body				
25W	42.3oz (1,200g)			
30/35/40/50W	49.4oz (1,400g)			
110W	296oz (8,400g)			
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)			

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 and 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	

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RECEIVER (TYPICAL FIGURES SHOWN)

Analog sensitivity	VHF/UHF	VHF 50W	VHF 110W	700/800MHz
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 and 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 4 ohm)			

MILITARY STANDARDS 810C, D, E AND F

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	503.4	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

REGULATORY DATA

USA	**VHF**	CFR 47 Parts 22, 74, 90, 95J, 90.210		
	UHF	CFR 47 Parts 22, 74, 90, 95A, 90.210		
	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		

Authorized Partners

Please note that this product does not offer encryption capability and there is no upgrade path for this. If encryption may be required Tait recommends the TM9155 mobile radio.

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.

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

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ISO 9001
ISO 14001