

Tough, reliable and interoperable.

TP9135/TP9140 portable 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
- ▶ Ease of operation: all user controls and menu functions are identical across all the Tait P25 portables, mobiles and hand-held control heads
- ▶ Tested beyond MIL-STD-810C, D, E and F – Tait performs tougher drop tests, then performs ingress and other tests on the same radio
- ▶ Supports individual, group, broadcast and emergency calls
- ▶ Programmable power settings and intelligent batteries
- ▶ Emergency features for staff safety include Man Down and Lone Worker
- ▶ Advanced voting optimizes channel reception
- ▶ Comprehensive scanning features including P25 talk group, priority, dual priority and editable scanning.



Tait Tough Radio

Reliable and durable TP9135/TP9140 portable radios have been built to withstand the accidental knocks and the extremes of nature.

Dual shot molding provides built-in shock absorption, while a unique and patented battery clasp mechanism eliminates threat of the battery dislodging when the radio is dropped.

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 to P25 digital

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. For more advanced functionality users should consider investing in the TP9155/60 for long term flexibility.



Above: A TP9140 with yellow front panel shown.

More front panel colored options are available. Please contact your local Tait representative for more information.

GENERAL

Frequency ranges	Frequency band*	
VHF	136–174MHz*	
UHF	380–420MHz* 400–470MHz* 450–530MHz	
700/800MHz	Transmit 762–776MHz 792–825MHz 851–870MHz	Receive 762–776MHz 851–870MHz
Frequency stability	±1.5ppm (22°F to 140°F/-30°C to 60°C)	
Channels/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	
Dimensions (DxWxH)	1.9 x 2.6 x 6.6in (47 x 67 x 167mm)	
Weight (includes NiMH battery) (includes Li-Ion battery)	20.4oz (580g) 16.4oz (480g)	
Interfaces	Four-line full dot matrix LCD	
Channel spacing	12.5/15/20/25/30kHz	
Frequency increment	2.5/5/6.25	
Operational temperature	-22°F to 140°F (-30°C to 60°C)	
Sealing	IP54 dust and rain	
Rated audio	>500mW	
Analog signaling options	MDC1200 encode/decode, Two Tone decode, PL (CTCSS), DPL (DCS)	

TRANSMITTER

	VHF	UHF	700/800MHz
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
Modulation limiting			
25/30kHz channel	±5kHz		
20kHz channel	±4kHz		
12.5kHz channel	±2.5kHz		
FM hum and noise (typical)			
25/30kHz channel	-48dB	-41dB	-40dB
12.5/15kHz channel	-42dB	-37dB	-34dB
Conducted emissions (typical)	-75dBc	-75dBc	-70dBc
Audio response (analog)			
12.5/15kHz	300–2550Hz +1/-3dB		
25/30kHz	300–3000Hz +1/-3dB		
Audio distortion (analog)	<5% @ 1kHz, 60% modulation		
Transmit attack time (TIA/EIA 102)	50mS		
Duty cycle	1min Tx, 4min Rx for 8hrs @ 140°F (60°C)		

RECEIVER (TYPICAL FIGURES SHOWN)

	VHF/UHF	700/800MHz
Analog sensitivity 12dB SINAD	0.28µV (-118dBm)	0.28µV (-118dBm)
Digital sensitivity (TIA/EIA-102) 5%BER	0.22µV (-120dBm)	0.22µV (-120dBm)
Intermodulation rejection (TIA/EIA 102)	-78dB	-78dB
Adjacent channel selectivity 25/30kHz channel (TIA/EIA 603) 12.5kHz channel (TIA/EIA 102)	-73dB -63dB	-70dB -60dB
Spurious response rejection	-75dB	-70dB
Residual audio noise ratio (TIA/EIA 102)	45dB	45dB
Audio distortion @ rated audio	<3%	<3%

MILITARY STANDARDS 810C, D, E AND 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, 4

BATTERY

Intelligent battery options	NiMH 2400mAh Li-Ion 2400mAh
Battery shift life (NiMH/Li-Ion)	>12 hours 5/5/90

CHARGER

Charger options (NiMH, Li-Ion)	Fast desktop smart charger 6-way multi charger Vehicle charger
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REGULATORY DATA

USA	VHF UHF 800MHz	CFR 47 Parts 22, 74, 90, 90.210 CFR 47 Parts 22, 74, 90, 95A, 90.210 CFR 47 Parts 22, 90
Canada		RSS-119
Europe		EN300 086, EN300 113, EN301 489, EN60950-01
Australia/New Zealand		A3/NZS4295
Type approval	FCC Industrie Canada NTIA	
	VHF UHF	CASTPAB1A 737A-TPAB1A 136-174MHz* CASTPAH5A 737A-TPAH5A 380-420MHz* CASTPAH6A 737A-TPAH6A 400-470MHz* CASTPAK5A 737A-TPAK5A
Emission designators		10K0F1D, 10K0F1E, 10K0F7D, 10K0F7E, 11K0F3E, 12K7F1D, 16K0F3E, 6K60FZD, 7K70F1D, 8K10F1D, 8K10F1E, 8K10F7D, 8K10F7E, 9K60F2D
ESD standard		IEC 61000-4-2

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 TP9155/TP9160 portable radios.

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.

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