



TP8110

TP8115/35

TP8120/40

## TP8100 TRUNKED AND CONVENTIONAL PORTABLE RADIOS

Uncompromising build quality and sleek mechanical design make this reliable and waterproof portable radio ideal for situations when only the toughest will do. Available in either trunked or conventional, the TP8100 is sure to suit as a standalone portable or within a wider system solution.

### Tough, reliable and waterproof

- Tough enough to withstand the harshest environments; engineered to exceed IP67 sealing: zero dust ingress and immersible in one metre of water for 30 minutes
- Light and easy to carry: only 344 grams with Li-Ion battery
- Top-mounted, easy-to-find programmable emergency key, along with Man Down and Lone Worker capabilities, improve worker safety
- Up to 350 conventional channels with CTCSS/DCS, Selcall, Two Tone Decode (Type 99), MDC1200, G-Star (Encode) and voting/scanning
- Trunked MPT features include multiple call types: individual/group/PABX/interfleet and short data messages, including MPT Talker Identification
- Swipe contacts, battery-only or battery-on-radio charging, desktop fast chargers provide efficient battery management
- Ease of programming enables efficient and rapid customisation

### Engineered to be tough

Exceeds MIL-STD 810 C, D, E and F and rated waterproof to IP67, delivering communications you can trust.

### High quality manufacture

Two-shot moulded construction lengthens product life and lowers cost of ownership.

### Superb mechanical design

Ergonomic design contributes to a positive user experience.

### Messaging capabilities

Stay in touch with 16 character user defined messages (TP8120/TP8140) or predefined status messaging on all display models.

### Long shift life

Powerful Li-Ion battery comes as standard delivering over eleven hours shift life.

### Comprehensive accessory suite

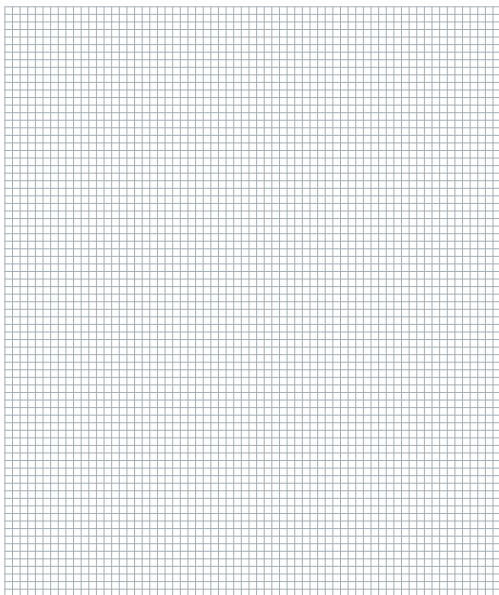
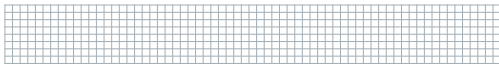
Complement your Tait radio with a range of high performance accessories.

### Voice Security

Secure your voice communications with software voice inversion as standard.

### Worker Safety

Man Down and Lone Worker capabilities offer peace of mind for workers in isolated or hazardous situations.



ISO 9001  
ISO 14001

All measurements conducted using EN 300 086-1 testing method except those marked † which use TIA-603-C testing method.

Tait is your complete supplier of radio communications equipment offering mobile, portable and infrastructure solutions. Tait is renowned for its flexibility, responsiveness and commitment to producing innovative world-class mobile radio communications products.

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.

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# TP8100 Specifications

General		
Frequency Range	<b>VHF</b> 136-174MHz 174-225MHz	<b>UHF</b> 400-470MHz 450-530MHz
Frequency Increments	2.5kHz, 5kHz, 6.25kHz	
Channel Spacing	12.5kHz, 20kHz, 25kHz	
Frequency Stability	±2ppm (-30°C to 60°C/-22°F to 140°F)	
Signalling Format	CTCSS/DCS, Two Tone Encode (Type99), Selcall, MDC1200, G-Star (Encode)	
Conventional	MPT 1327, CTCSS, DCS (Tx only)	
Trunked		
Presets	<b>Conventional</b> TP8110 16 Channels TP8115 128 Channels TP8120 350 Channels	<b>Trunked</b> TP8135 100 Alphanumeric Presets TP8140 100 Alphanumeric Presets
Operational Temperature	-30° to 60°C (-22° to 140°F)	
Sealing	IP67	

Military Standards 810 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
Rein	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

\* ALSO MEETS EQUIVALENT SUPERSEDED MIL-STD 810 C, D & E.

User Interface	
Dimensions (WxHxD)	62 x 130 x 40mm (2.4 x 5.12 x 1.57in)
Weight (with Li-Ion 2000mAh battery)	344gm (12.13oz)
Interfaces	Menu driven user interface 24 character LCD display Three programmable function keys - includes emergency button Two rubber knobs (volume & channel selection) Side-mounted accessory connector Large Push-To-Talk button Stainless steel antenna connector

Transmitter	136-174MHz	174-225MHz	400-470MHz
RF Output Power	5W, 2.5W, 1W	5W, 2.5W, 1W	4W, 2.5W, 1W
Modulation Limiting			
12.5/20/25kHz channel	±2.5/±4.0/±5.0kHz	±2.5/4.0/5.0kHz	±2.5/4.0/5.0kHz
FM Hum & Noise <sup>†</sup> 12.5/20/25kHz channel	40/44/46dB	42/45/47dB	36/41/42dB
Conducted Emissions	-39dBm (<1GHz) -46dBm (>1GHz)	46dBm 40dBm	-40.6dBm -40.0dBm
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB	+0.5, -2.5dB
Audio Distortion at 1kHz with 60% modulation	0.3%	0.3%	0.5%
RF Output Power			
450-530MHz	806-870MHz	896-941MHz	
4W, 2.5W, 1W	4W, 2.5W, 1W <sup>†</sup>	4W, 2.5W, 1W <sup>†</sup>	
Modulation Limiting			
12.5/20/25kHz channel	±2.5/4.0/5.0kHz	±2.2/3.8/4.4kHz <sup>†</sup>	±2.2/3.8/4.4kHz <sup>†</sup>
FM Hum & Noise <sup>†</sup> 12.5/20/25kHz channel	36/41/42dB	39/44/45dB <sup>†</sup>	40/44/46dB <sup>†</sup>
Conducted Emissions	-39dBm -40.0dBm	-33dBm <sup>†</sup>	-33dBm <sup>†</sup>
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB <sup>†</sup>	+0.5, -2.5dB <sup>†</sup>
Audio Distortion at 1kHz with 60% modulation	0.5%	0.5% <sup>†</sup>	0.5% <sup>†</sup>
Duty Cycle (all bands)	1min Tx, 4min Rx (20%)		

Receiver	136-174MHz	174-225MHz	400-470MHz
Sensitivity (Specification)	(20dB Phospho)	(20dB Phospho)	(20dB Phospho)
NB/MB/WB channel	-113.5/-117.0/-117.0dBm	-115.2/-116.6/-118.4dBm	-115.5/-117.8/-118.4dBm
Intermodulation Rejection			
NB/MB/WB channel	67.6/68.6/68.7dB	67.4/67.9/68.1dB	67.4/67.9/68.1dB
Adjacent Channel Selectivity			
12.5/20/25kHz channel	67.4/72.9/76.4dB	67.7/73.8/76.1dB	67.7/73.8/76.1dB
Spurious Response Rejection			
NB/MB/WB Channel	71.9/75.9dB	71.8/72.7dB	71.8/72.7dB
FM Hum & Noise <sup>†</sup> 12.5/20/25kHz channel	40/44/45dB	37/41/43dB	37/41/43dB
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB	+0.5, -2.5dB
Audio Distortion @ Rated Audio	2%	3.2%	3.2%
Sensitivity (Specification)			
450-530MHz	806-870MHz	896-941MHz	
(20 dB Phospho)	(12dB SINAD)	(12dB SINAD)	
-115.3/-118.0/-118.4dBm	-115.2/-116.6/-118.4dBm <sup>†</sup>	-115.5/-117.8/-118.4dBm <sup>†</sup>	
Intermodulation Rejection			
NB/MB/WB channel	67.4/68.3/68.4dB	75.3/75.8/78.2dB <sup>†</sup>	75.4/76/77.1dB <sup>†</sup>
Adjacent Channel Selectivity			
12.5/20/25kHz channel	65.4/72.2/75.1dB	64.6/72.2/75.8dB <sup>†</sup>	64.3/72.4/73.3dB <sup>†</sup>
Spurious Response Rejection			
NB/MB/WB Channel	71.4/72.5dB	66.1/66.9dB <sup>†</sup>	76.7/76.7dB <sup>†</sup>
FM Hum & Noise <sup>†</sup> 12.5/20/25kHz channel	36/40/42dB	37/40.3/43dB <sup>†</sup>	37/40.6/43dB <sup>†</sup>
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB <sup>†</sup>	+0.5, -2.5dB <sup>†</sup>
Audio Distortion @ Rated Audio	3.5%	1.5% <sup>†</sup>	2.2% <sup>†</sup>

Battery and Charger	
Battery	Li-Ion 2000 mAh Shift life (5/5/90) >11 hours
Charger Options	Desktop fast charger Multi-way charger