

TP8100

SPECIFICATIONS



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, 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
- Security of Audible Indicator control to get minimum volume for alerts such as Man Down and Lone Worker

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.

TP8100 Specifications

General

Frequency Range	VHF 136–174MHz 174–225MHz	UHF 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, Selcall, MDC1200, G-Star (Encode)	
Conventional	MPT 1327, CTCSS, DCS (Tx only)	
Trunked		
Presets		
Conventional	TP8110 16 Channels TP8115 128 Channels TP8120 350 Channels	
Trunked	TP8135 100 Alphanumeric Presets (10 Channel Conventional) TP8140 100 Alphanumeric Presets (10 Channel Conventional)	
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
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

* 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	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	450–530MHz
RF Output Power	5W, 2.5W, 1W	5W, 2.5W, 1W	4W, 2.5W, 1W	4W, 2.5W, 1W
Modulation Limiting				
12.5kHz channel	±2.5kHz	±2.5kHz	±2.5kHz	±2.5kHz
20kHz channel	±4.0kHz	±4.0kHz	±4.0kHz	±4.0kHz
25kHz channel	±5.0kHz	±5.0kHz	±5.0kHz	±5.0kHz
FM Hum & Noise (TIA-603-C test method)				
12.5kHz channel	40dB	42dB	36dB	36dB
20kHz channel	44dB	45dB	41dB	41dB
25kHz channel	46dB	47dB	42dB	42dB
Conducted Emissions				
-39dBm (<1GHz)	46dBm	46dBm	-40.6dBm	-39dBm
-46dBm (>1GHz)	40dBm	40dBm	-40.0dBm	-40.0dBm
Audio Response	+0.5, -2.5dB	+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%	0.5%
Duty Cycle	1min Tx, 4min Rx (20%)			

Receiver*

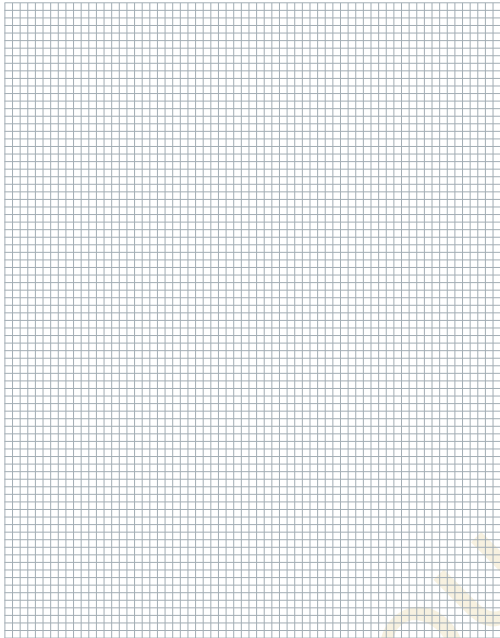
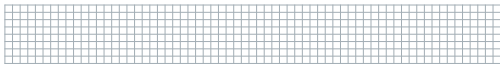
	136–174MHz	174–225MHz	400–470MHz	450–530MHz
Sensitivity 20dB (Phospho)				
NB Channel	-113.5dBm	-115.2dBm	-115.5dBm	-115.3dBm
MB Channel	-117.0dBm	-116.6dBm	-117.8dBm	-118.0dBm
WB Channel	-117.0dBm	-118.4dBm	-118.4dBm	-118.4dBm
Intermodulation Rejection				
NB Channel	67.6dB	67.4dB	67.4dB	67.4dB
MB Channel	68.6dB	67.9dB	67.9dB	68.3dB
WB Channel	68.7dB	68.1dB	68.1dB	68.4dB
Adjacent Channel Selectivity				
12.5kHz channel	67.4dB	67.7dB	67.7dB	65.4dB
20kHz channel	72.9dB	73.8dB	73.8dB	72.2dB
25kHz channel	76.4dB	76.1dB	76.1dB	75.1dB
Spurious Response Rejection				
NB Channel	71.9dB	71.8dB	71.8dB	71.4dB
WB Channel	75.9dB	72.7dB	72.7dB	72.5dB
FM Hum & Noise (TIA-603-C test method)				
12.5kHz channel	40dB	37dB	37dB	36dB
20kHz channel	44dB	41dB	41dB	40dB
25kHz channel	45dB	43dB	43dB	42dB
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB	+0.5, -2.5dB	+0.5, -2.5dB
Audio Distortion @ Rated Audio	2%	3.2%	3.2%	3.5%

Battery

Battery	Li-Ion 2000 mAh Shift life (5/5/90) >11 hours
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Charger

Charger Options	Desktop fast charger Multi-way charger
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All measurements use EN 300 086-1 unless stated otherwise.

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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