

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 and Lone Worker capability improves worker safety
- Up to 350 conventional channels with CTCSS/DCS, Selcall and voting/scanning
- Trunked MPT features include multiple call types: individual/group/PABX/interfleet and short data messages
- 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.

TP8100 Specifications

General

Frequency Range	VHF 136–174MHz	UHF 400–470MHz 450–530MHz
Channel Increments	2.5kHz, 5kHz, 6.25kHz	5kHz, 6.25kHz
Channel Spacing	12.5kHz, 20kHz, 25kHz	12.5kHz, 20kHz, 25kHz
Frequency Stability	±2ppm (-30°C to +60°C/-22°F to 140°F)	
Signalling Format	CTCSS/DCS, Selcall	
Conventional	MPT 1327, CTCSS, DCS (Tx only)	
Trunked		
Presets		
Conventional	TP8110 16 Channels	TP8115 128 Channels
Trunked	TP8120 350 Channels	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	344gm (12.13oz)
with Li-Ion 2000mAh	
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	400–470MHz	450–530MHz
RF Output Power	5W, 2.5W, 1W	4W, 2.5W, 1W	4W, 2.5W, 1W
Modulation Limiting			
12.5kHz channel	±2.5kHz	±2.5kHz	±2.5kHz
20kHz channel	±4.0kHz	±4.0kHz	±4.0kHz
25kHz channel	±5.0kHz	±5.0kHz	±5.0kHz
FM Hum & Noise (TIA-603-C test method)			
12.5kHz channel	> 40dB	> 36dB	> 36dB
20kHz channel	> 44dB	> 41dB	> 41dB
25kHz channel	> 46dB	> 42dB	> 42dB
Conducted Emissions	<-39dBm (<1GHz) <-46dBm (>1GHz)	<-40.6dBm <-40.0dBm	<-39dBm <-40.0dBm
Audio Response	+0.5, -2.5dB	+0.5, -2.5dB	
Audio Distortion at 1kHz with <2% 60% modulation	< 0.3%	< 0.5%	< 0.5%
Duty Cycle	1min Tx, 4min Rx (20%)		

Receiver*

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