

**TAIT  
TOUGH**  
The Toughest Radios in the Industry



## TP9800 MULTIBAND PORTABLES

### RUGGED, LIGHTWEIGHT, MULTI-AGENCY COOPERATION

Multiple bands. One portable. Customized for you. Increase worker safety and productivity across multiple radio networks and frequency bands with the TP9800 Multiband Portable, a versatile, lightweight and compact radio designed for maximum reliability and interoperability.

**taït**  
communications



3W speaker with water shedding grille and active noise cancellation.



Easy-grip control options for volume and channel selection.



Large color screen to keep you fully informed at a glance.

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#### SEAMLESS MULTIBAND PERFORMANCE

The TP9800 Multiband Portable is configurable to operate on any combination of VHF, UHF and 700/800MHz bands. Flexible and simple ordering and deployment of single, dual and multiband operation at time of purchase, or subsequently over the air. Bands are not locked and can be reconfigured.

#### RUGGED, LIGHTWEIGHT DESIGN

Experience the lightest P25 multiband portable radio on the market with high capacity battery and compact design, providing up to 17 hours of shift life in P25 Phase 2 mode.

To give you maximum reliability, the Tait Tough design is certified IP68 dust and waterproof, IP65 protected from water jets and MIL-STD810G to withstand high and low temperatures, vibration, shock (drop), humidity, salt fog, rain, immersion, sand and dust.

#### MAXIMUM CONNECTIVITY

Connect to the range of networks in current operations or future technology migrations: Conventional Analog, P25 Conventional Digital, P25 Trunking Phase 1 and Phase 2, with integrated GNSS option for Location Services, Bluetooth® for wireless voice accessories, and WiFi OTAP.

Analog signaling options include Two Tone decode, MDC1200, PL (CTCSS), DPL (DCS), and Selcall.

#### EXCEPTIONAL AUDIO

Hear and be heard, even in the most extreme environments, with a powerful 3W speaker, and dual microphone active noise cancellation that removes background noise in both analog and digital modes.

#### ENHANCED WORKER SAFETY

Man Down and Lone Worker features are included as standard to send automated safety alerts and can combine with location data and Tait GeoFencing software options to guide an effective response. The programmable Emergency key can also send these safety alerts manually.

#### ERGONOMIC USER EXPERIENCE

The TP9800 is designed for easy use in emergency situations, with ergonomic, easy-grip control options; four programmable function keys and a three-way selector; and a range of accessories to tailor your experience.

#### COMPATIBLE BATTERIES & ACCESSORIES

The TP9800 shares common batteries, chargers and audio accessories that are compatible with all current TP9000 series portables.

#### PROVEN P25 INTEROPERABILITY

Enable multi-agency response and multi-vendor compatibility for voice, data and encryption methods – the TP9800 is approved by the TIA-102 P25 Compliance Assessment Program.

#### SECURE COMMUNICATION

Ensure only authorized personnel can hear your communications with end-to-end encryption management options, FIPS 140-2 certified module, AES, DES and ARC4 algorithms, Tait EnableProtect Key Fill Device and Key Management Facility.



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## TECHNICAL SPECIFICATIONS

### GENERAL

Frequency stability	±0.5ppm (-22°F to +140°F/-30°C to +60°C)
Channels/zones	2,000 channels/100 zones
Talk groups	1000 talk groups, up to 2,000 members total
Scan groups	300 with up to 10 members each, maximum of 2,000 members total
Bluetooth®	Supported
Encryption (via Key-Fill Device or OTAR)	Supported in P25 Operation (FIPS Certified 256-bit AES, DES, ARC4)
OTAP	Supported (P25 Trunking, WiFi) – Requires Tait EnableFleet
Dimensions (with High Capacity battery)	1.77 x 2.56 x 5.71in / 45 x 65 x 145mm (DxWxH excluding knobs and antenna)
Weight (with High Capacity battery)	13.42oz / 382g (without antenna)
Supported Languages	English, German, French, Spanish, Portuguese, Czech, Polish, Bulgarian
Channel Spacing	6.25/12.5/15/20/25/30kHz <sup>2</sup>
Frequency increment	2.5/3.125/5/6.25kHz
Radio Operating temperature	-22°F to +140°F (-30°C to +60°C)
Vocoder type	AMBE +2™
Audio Output	3W
Signaling options (analog)	MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), Selcall
Water and dust protection	IP68 & IP65

### MILITARY STANDARDS 810G<sup>7</sup>

Applicable MIL-STD	Method	Procedure	Applicable MIL-STD	Method	Procedure
Low pressure	500.5	2	Humidity	507.5	2
High temperature	501.5	1, 2	Salt fog	509.5	1
Low temperature	502.5	1, 2	Sand & Dust	510.5	1, 2
Temperature shock	503.5	1	Immersion	512.5	1
Solar radiation	505.5	1	Vibration	514.6	1
Rain	506.5	1, 3	Shock	516.6	1, 4, 5, 6

### BATTERY <sup>3</sup>

P25 Phase 2 / TDMA Mode Shift Life (5/5/90) with High Capacity battery	17 hours
Analog and P25 Phase 1 / FDMA Mode Shift Life (5/5/90) with High Capacity battery	13 hours

### CHARGER

Charger options (Li-Ion)	Fast desktop single charger, 6-way multi charger, vehicle charger and battery only vehicle charger
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REGULATORY DATA	USA (FCC)	CANADA (ISED)	EUROPE/UK (CE)	AUSTRALIA/NEW ZEALAND (AS/NZ)
VHF (136-174MHz)	✓	✓	✓	✓
UHF (378-520MHz)	✓	✓	✓	✓ <sup>4</sup>
700/800MHz	✓	✓	✓	✓
900MHz <sup>6</sup>	✓	✓	-	-

# TP9800 MULTIBAND PORTABLES

## TECHNICAL SPECIFICATIONS continued

TRANSMITTER	VHF	UHF	700/800MHz	900MHz <sup>6</sup>
<i>(Note – Radio can be configured to operate on any combination of the supported bands)</i>				
Frequency range	136-174MHz	378-520MHz	757-870MHz	896-941MHz
Output power (nom)	6W <sup>1</sup> , 5W, 3W, 2W, 1W	5W <sup>1</sup> , 4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
Modulation limiting				
12.5/15kHz channel	±2.5kHz	±2.5kHz	±2.5kHz	±2.5kHz
25/30kHz channel <sup>2</sup>	±5kHz	±5kHz	±5kHz	±5kHz
FM hum and noise				
12.5kHz channel	-45dB	-45dB	-40dB	-40dB
25kHz channel <sup>2</sup>	-48dB	-48dB	-45dB	-45dB
Radiated and conducted emissions	-75dBc	-72dBc	-75dBc	-75dBc
Audio response (analog)	+1/-3dB	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (analog @1kHz, 60% mod) <sup>5</sup>	2%	2%	2%	2%

RECEIVER	VHF	UHF	700/800MHz	900MHz <sup>6</sup>
<i>(Note – Radio can be configured to operate on any combination of the supported bands)</i>				
Frequency range	136-174MHz	378-520MHz	757-776MHz, 851-870MHz	935-941MHz
Sensitivity (analog) 12dB SINAD (TA-603I)	0.22uV (-120dBm)	0.22uV (-120dBm)	0.22uV (-120dBm)	0.22uV (-120dBm)
Sensitivity (P25) 5% BER	0.2uV (-121dBm)	0.2uV (-121dBm)	0.2uV (-121dBm)	0.2uV (-121dBm)
Intermodulation rejection (P25) TIA-102	75dB	75dB	70dB	70dB
Adjacent channel rejection				
12.5kHz (P25) TIA-102	60dB	60dB	60dB	60dB
25kHz TIA-603 (2-tone) <sup>2</sup>	70dB	70dB	65dB	65dB
Spurious response rejection (P25) TIA-102	75dB	80dB	70dB	70dB
Residual audio noise ratio (P25) TIA-102	45dB	45dB	45dB	45dB
Audio distortion (rated audio)	1.5%	1.5%	1.5%	1.5%
FM hum and noise (Analog)				
12.5kHz channel <sup>2</sup>	-50dB	-50dB	-45dB	-40dB

### NOTE:

1. Very high power only available in USA/Canada.
2. Wideband operation is not available in the USA in some bands.
3. Battery performance is dependent on frequency, temperature, and operational configuration.
4. The UHF band radios are approved for use in Citizen Band in Australia and New Zealand when programmed to meet the requirements of AS/NZS4365.
5. Rated audio (for performance testing) 0.5W.
6. 900MHz singleband operation only, requires matching 900MHz singleband antenna.
7. Designed to meet MIL Standards. Compliance pending.

Tait has taken every care in compiling this brochure, but we're always innovating and therefore changes to our models, designs, technical specifications, visuals and other information included in this brochure could occur. For the most up-to-date information and for a copy of our terms and conditions please visit our website [www.taitcommunications.com](http://www.taitcommunications.com)

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### QUALIFICATIONS

