

# More efficient networks. More possibilities.

The Tait TP9400 may be the smallest P25 Phase 2-capable portable but it is uncompromising in meeting the demands of those serving our communities. With analog, 12.5kHz P25 Phase 1 FDMA conventional/trunked and 6.25kHz equivalent P25 Phase 2 TDMA trunked and LSM (CQPSK) decode capability in a single device, you can transition to a more spectrally efficient solution in a time frame that suits you.

The TP9400 portable enables first responder effectiveness and safety with internal GPS\*, Bluetooth® wireless technology\*, IP68 and IP65 protection, and AES encryption.



\*Not all features are supported in all models or modes of operation.  
Contact Tait or an authorized channel partner for more details.

[www.taitradio.com](http://www.taitradio.com)

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## FEATURES AND BENEFITS

### Delivers on the P25 standards

Benefit from the spectral efficiency, multivendor interoperability, security, migration and data capability demanded by the P25 standards

- TIA-102 P25 CAP tested and certified, providing multi-vendor interoperability
- 12.5kHz P25 Phase 1 FDMA and 6.25kHz equivalent P25 Phase 2 TDMA capable
- FCC and IC compliances include P25 Phase 2 emission designator (8K10F1W)

### Designed for demanding environments

- Designed with users to ensure effective every-day operation
- Exceeds relevant MIL-STD-810G
- IP68 dust-proof and immersible
- IP65 water jet protection
- Water shedding grille assists voice clarity and volume in wet environments
- Shock absorbing, impact-protected corners
- Large four-line LCD with icons to display key parameters
- 4 and 16 keypad options
- Four programmable function keys and three-way selector

### Color Options

- Tait TP9400 portables are available in black, red, orange, yellow, and high visibility green
- These color options make it easier to identify equipment in the field

## High-performing, voice communications

Robust design delivers clear, mission-critical voice communications

- Analog, P25 Phase 1 conventional/trunked and P25 Phase 2 trunked
- Automatic dual mode between analog and P25 Phase 1 conventional
- Support for a variety of simulcast modes such as LSM and C4FM
- Unique microphone design coupled with AMBE+2 enhanced vocoder reduces background noise in demanding environments
- Voting ensures priority selection of the channel with optimum receive quality
- Dynamic regrouping and supergroup operation for mission critical workforce management
- Increased channel capacity with up to 2,000 channels
- Bluetooth\*
- Scanning modes include: priority, dual priority, editable, zone, and background scan
- Range of analog signalling functionality, i.e. MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS)

## Improve workforce safety

- Programmable emergency key is easily accessible and highly visible on the radio
- Man Down and Lone Worker as standard
- Inbuilt GPS transmits location\*
- Trunked failsoft reverts to conventional operation during trunked network failure
- Intrinsically Safe options available (refer to TP9461 specifications)

## Effective operations with voice and data

- Pre-set status messages
- Conventional and trunked IP data
- Location services\*

## Efficient, security-focused management

The TP9400 management facilities and applications allow you to efficiently manage your radio fleet

- Over-the-air Rekeying (OTAR)
- Over-the-air-programming (OTAP) with the industry-leading EnableFleet configuration management system delivers software and firmware changes over the Tait P25 trunked network, making it faster, easier and more affordable to update and optimize the performance of the radios in your fleet.
- Radio inhibit and uninhibit to allow management of misplaced or stolen radios
- Supports end-to-end encryption, including AES encryption
- EnableProtect Key Fill Device (KFD) for quick, reliable encryption key programming
- Programming application for efficient fleet operation
- EnableProtect Advanced System Key allows administrators to authorize and restrict subscriber units on their network

## TP9400 Accessories

- Audio: speaker-microphones, earpieces and surveillance kits
- Chargers: in-vehicle, single fast and 6-way multi-chargers
- Range of Li-ion battery capacities to match your operational needs

\*Not all features are supported in all models or modes of operation. Contact Tait or an authorized channel partner for more details.

# TP9400

## SPECIFICATIONS

### GENERAL\*

Frequency stability	±0.5ppm (-22°F to +140°F/-30°C to +60°C)
Channels/zones	1,000 channels/50 zones (2,000 channels/100 zones optional enhancement with software license)
Talk groups	50 talk groups, up to 1,000 members total (2,000 members optional enhancement with software license)
Scan groups	300 with up to 50 members each, maximum of 2,000 members total
Dimensions (DxWxH)	
With Li-Ion standard battery	1.61 x 2.56 x 5.35in (41 x 65 x 136mm) - excluding knobs
With Li-Ion standard battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) - excluding knobs
Weight	
With Li-Ion standard battery	11.46oz (325g) - no antenna
With Li-Ion standard battery	13.12oz (372g) - no antenna
Channel Spacing	12.5/15/20/25/30kHz
Frequency increment	2.5/5/6.25
Operating temperature	-22°F to +140°F (-30°C to +60°C)
Water and dust protection	IP68 & IP65
Rated audio	0.5W
Speaker rating	2W
Signaling options (analog)	MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS)

### TRANSMITTER\*

	VHF	UHF	700/800MHZ
Frequency range	136-174MHz	400-470MHz 450-520MHz	762-870MHz
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
Modulation limiting			
12.5/15kHz channel	±2.5kHz	±2.5kHz	±2.5kHz
25/30kHz channel	±5kHz	±5kHz	±5kHz
FM hum and noise			
12.5kHz channel	-45dB	-45dB	-40dB
25kHz channel	-48dB	-50dB	-45dB
Radiated and conducted emissions	-75dBc	-72dBc	-75dBc
Audio response (analog)	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (analog)	1.5% @ 1kHz, 60% deviation	1.5%	1.5%

### RECEIVER\*

	VHF	UHF	700/800MHZ
Frequency range	136-174MHz	400-470MHz 450-520MHz	762-776MHz 851-870MHz
Sensitivity (analog)			
12dB SINAD	0.22uV (-120dBm)	0.22uV (-120dBm)	0.22uV (-121dBm)
Sensitivity (P25)			
5% BER	0.22uV (-120dBm)	0.22uV (-120dBm)	0.22uV (-121dBm)
Intermodulation rejection (P25) TIA-102	75dB	75dB	75dB
Adjacent channel rejection			
12.5kHz (P25) TIA-102	60dB	60dB	60dB
25kHz TIA-603 (2-tone)	73dB	70dB	70dB
Spurious response rejection (P25) TIA-102	75dB	80dB	70dB
Residual audio noise ratio (P25) TIA-102	45dB	45dB	45dB
Audio distortion (rated audio)	1.5%	1.5%	1.5%
FM hum and noise (Analog)			
12.5kHz channel	-45dB	-40dB	-40dB
25kHz channel	-48dB	-45dB	-45dB

### MILITARY STANDARDS 810C, D, E, F AND G

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

Battery shift life: Li-Ion premium	12 hours (5/5/90)
Battery shift life: Li-Ion standard	9 hours (5/5/90)

### CHARGER

Charger options (Li-Ion)	Fast desktop single charger, 6-way multi charger#, vehicle charger#
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#These chargers are not available for sale in Brazil

REGULATORY DATA <sup>2</sup>	USA	CANADA	EUROPE	AUSTRALIA/NEW ZEALAND
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295
UHF (400-470MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295
				AS/NZS4365 <sup>2</sup>
UHF (450-520MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295
				AS/NZS4365 <sup>2</sup>
700/800MHz	CFR 47	RSS-119	NA	NA
Emission Designators**	11K0F3E, 16K0F3E <sup>1</sup> , 6K60F2D, 7K80F2D, 9K60F2D <sup>1</sup> , 10K8F2D <sup>1</sup> , 7K60FXW, 7K60FXD,			

\*Contact your local Tait representative for more information.

<sup>1</sup> Wideband operation is not available in the USA in some bands

<sup>2</sup> 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.

### TAIT P25 PHASE 2 SOLUTION

Backed up by our proven radio network expertise, the TP9400 portable is part of our larger P25 Phase 2 offering. This solution consists of terminals, infrastructure, applications, services and integration with third party interfaces to ensure that your organization can reap all the benefits of the spectrally-efficient P25 standard.

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

For further information please check with your nearest Tait office or authorized dealer.

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Tait Limited facilities are certified for ISO 9001:2008 (Quality Management System), ISO 14001:2004 (Environmental Management System) and BS OHSAS 18001:2007 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. In addition, all our Regional Head Offices are certified to ISO 9001:2008.

#### Authorized Partners

