TP9600
SPECIFICATIONS

Instant, reliable communications is just the beginning.

First responders around the world trust Tait for multi-agency coordination in the most challenging environments. TP9600 portables enhance the user experience with a color screen, louder, clearer audio, and more ergonomic controls, all built Tait Tough for critical communications. WiFi connectivity can be used for easy, advanced fleet management.

TP9655

TP9660

KEY FEATURES

Exceptional Audio

- P25 AMBE+2 enhanced digital vocoder
- Digital noise suppression software
- Dual-mic active noise cancellation
- Large, powerful 3W speaker

Connectivity Options

- Conventional Analog
- P25 Conventional Digital
- P25 Phase 1 Digital Trunking
- P25 Phase 2 Digital Trunking
- WiFi OTAP capability
- Bluetooth® audio

Enhanced Worker Safety

- Programmable Emergency Key
- Man Down and Lone Worker modes
- Integrated GPS
- Location Services and GeoFencing options

Enhanced User Experience

- Large high resolution color screen
- Ergonomic design, user friendly controls
- Fleet management software

Built Tait Tough

- IP65 & IP68 Dust and Waterproof
- Shock absorbing corner protection
- Drop test exceeds MIL-STD-810G
- Water shedding grille

TP9660 TP9660 TP9660 TP9660

TAIT TOUGH
The Toughest Radios in the Industry

P25 DIGITAL • DIGITAL WIRELESS • SANS FIL NUMÉRIQUE • INALÁMBRICO

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FEATURES AND BENEFITS

Enhanced user experience

The TP9600 is designed for easy use in emergency situations

- Large, color screen for increased clarity of messaging
- Loud, powerful 3W speaker to hear over background noise
- Dual mic active noise cancellation removes background noise in analog and digital modes
- Digital noise suppression software enhances voice
- Accessory Active Noise cancellation to enhance transmit audio clarity
- Bluetooth® connectivity for wireless voice accessories
- Ergonomic, user friendly design and easy to use controls
- Four programmable function keys and three-way selector
- Tailor your experience with wide range of accessory options

P25 choice and interoperability

Benefit from the spectral efficiency, multi-agency response, multi-vendor interoperability, security, migration and data capability demanded by the P25 standards

- TIA-102 P25 CAP tested and certified, providing multi-vendor interoperability
- P25 Phase 1 and Phase 2 Options

Extensive network capabilities

- Future proof multi-mode flexibility
- Automatic dual mode between analog and P25 Phase 1 conventional
- Support for a variety of analog and digital simulcast modes, including LSM and C4FM
- 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
- Scanning modes include: priority, dual priority, in-zone, Talkgroup scanning, and background scan
- Range of analog signaling functionality, i.e. MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), 5-Tone Selcall
- P25 Two-Tone Paging can be used to trigger pre-programmed actions
- Trunked failsoft reverts to conventional operation during trunked network failure
- Pre-set status messages
- Conventional and trunked IP data

Personalization Options

- Custom label printing tools
- Black, red, yellow, orange, and hi-visibility green color options for easy identification in the field

Improve workforce safety

- Programmable emergency key is easily accessible and highly visible
- Man Down and Lone Worker
- Integrated GPS option for Location Services
- Tait GeoFencing option for automated location based behavior
- Blast Alarms and Audible Alerts on P25 conventional and Selcall channels

Tait EnableFleet industry leading configuration management system

- Total visibility of your fleet from a secure, central point of control
- Wired connection or Over-the-air-programming (OTAP) to update configuration and software files
- OTAP via P25 trunked networks
- WiFi OTAP capability, independent of LMR mode (analog or digital, conventional or trunked)

Secure Communications

- Radio inhibit and uninhibit to allow management of misplaced or stolen radios
- Supports end-to-end encryption, including AES and DES algorithms
- FIPS 140-2 certified encryption module
- Compatible with Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying
- Compatible with Tait EnableProtect Advanced System Key, to ensure only authorized personnel can access radio software & configuration

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

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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)	
FIPS Certified 256-bit AES	Supported (P25 Operation)
DES	Supported (P25 Operation)
ARC4	Supported (P25 Operation)
OTAP*	Supported (P25 Trunking)
Dimensions (DxWxH)	
With Li-Ion Slimline battery	1.61 x 2.56 x 5.71in (41 x 65 x 145mm) excluding knobs
With Li-Ion Performance / High Capacity battery	1.77 x 2.56 x 5.71in (45 x 65 x 145mm) excluding knobs
Weight	
With Li-Ion Slimline battery	11.75oz (333g) – no antenna
With Li-Ion Performance battery	13.02oz (369g) – no antenna
With Li-Ion High Capacity battery	13.42oz (382g) – no antenna
Supported Languages	English (default), German, French, Spanish, Portuguese, Czech, Russian, Polish, Bulgarian
Channel Spacing	6.25/12.5/15/20/25/30kHz
Frequency increment	2.5/3.125/5/6.25kHz
Radio Operating temperature	-22°F to +140°F (-30°C to +60°C)
Water and dust protection	IP68 & IP65
Audio Output	3W
Signaling options (analog)	MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), Selcall
Vocoder type	AMBE +2™

TRANSMITTER	VHF	UHF	700/800MHZ#
Frequency range	136-174MHz (B1)	378-470MHz (HK) 450-520MHz (H7)	757-870MHz (K5)
Output power (nom)	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	-48dB	-45dB
Radiated and conducted emissions	-75dBc	-72dBc	-75dBc
Audio response (analog)	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (analog @1kHz, 60% mod)	2%	2%	2%

RECEIVER**	VHF	UHF	700/800MHZ
Frequency range	136-174MHz (B1)	378-470MHz (HK) 450-520MHz (H7)	757-776MHz, 851-870MHz (K5)
Sensitivity (analog)			
12dB SINAD (TA-603I)	0.22uV (-120dBm)	0.22uV (-120dBm)	0.22uV (-120dBm)
Sensitivity (P25)			
5% BER	0.2uV (-121dBm)	0.2uV (-121dBm)	0.2uV (-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)	70dB	70dB	65dB
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

* Contact Tait for advice on WiFi OTAP capability
**Rated audio (for performance testing) 0.5W

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MILITARY STANDARDS 810G

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[3]

P25 Phase 2 / TDMA Mode Shift Life (5/5/90)	
Li-Ion High Capacity	27 hours
Li-Ion Performance	20 hours
Li-Ion Slimline	16 hours
Analog and P25 Phase 1 / FDMA Mode Shift Life (5/5/90)	
Li-Ion High Capacity	21 hours
Li-Ion Performance	15 hours
Li-Ion Slimline	12 hours

CHARGER

Charger options (Li-Ion)	Fast desktop single charger, 6-way multi charger, vehicle charger and battery only vehicle charger

REGULATORY DATA	USA (FCC)	CANADA (ISED)	EUROPE/UK (CE)	AUSTRALIA/NEW ZEALAND (AS/NZ)
VHF (136-174MHz)	✔	✔	✔	✔
UHF (378-470MHz)	✔	✔	✔	✔ [2]
UHF (450-520MHz)	✔	✔	✔	✔ [2]
700/800MHz	✔	✔	-	-

[1] Wideband operation is not available in the USA in some bands
[2] 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
[3] Battery performance is dependent on frequency, temperature, and operational configuration.

TAIT P25 PHASE 2 SOLUTION

Backed up by our proven radio network expertise, the TP9600 portable is part of our larger P25 Phase 2 offering. This solution consists of radios, 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.taitcommunications.com.

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

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Tait International Limited offices and facilities are certified for ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and ISO 45001:2018 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. Tait Managed Services are certified for ISO 27001:2013 (Information Security Management System).

Authorized Partners

Quality Management ISO 9001

Environment Management ISO 14001:2015

Occupational Health & Safety Management ISO 45001:2018

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