ONLY AVAILABLE IN THE USA

TP9458 & TP9468 IS Division 1

SPECIFICATIONS

Designed for maximum safety in the field and enhanced usability

TP9468

Intrinsically Safe Division 1 Tait P25 portables are engineered to operate safely in hazardous environments, with the highest Class 1 Division 1 gas ratings in the market. Offering protection from the most volatile gases ensures your people have communications they can depend on.

This enables faster safety assessment when responding to the unknown, and allows use of Tait radios in Hazardous locations where other IS radio use today may be limited.

Built Tait Tough, the flexible TP9458 and TP9468 portables offer both analog and digital modes including P25 Phase 2, and strong encryption management capability in one device.

Improve workforce safety with smart features such as Location Services, Tait GeoFencing, and Man Down functionality.

TP9458

TP9458

TP9468

TP9458

TP9468

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SPECIFICATIONS

FEATURES AND BENEFITS

Flexible and Easy to Use

- Clear communication with P25 AMBE+2 enhanced digital vocoder and digital noise suppression software
- 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
- 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)

Tait Tough – Designed for demanding environments

- Water-shedding grill maintains transmitted voice clarity and high audio volume in wet environments
- IP65 & IP67 dust and water proof
- Display screen protected by recess
- Drop test exceeds MIL-STD-810G
- Shock absorbing corner protection

Complete package with accessories portfolio

- Intrinsically Safe audio accessories including speaker- microphones, headsets and earpieces.
- Intrinsically Safe Li-ion battery.
- Intrinsically Safe compatible charger.

Extensive Network Capabilities

- Future proof multi-mode flexibility offering 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 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, editable, zone, and background scan
- Range of analog signaling functionality, i.e. MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), 5-Tone Selcall
- Trunked failsoft reverts to conventional operation during trunked network failure
- Pre-set status messages
- Conventional and trunked IP data

Personalization options

- Choose from 4-key (TP9458) and 16-key (TP9468) radios
- Hi-visibility green, black, and yellow 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
- Designed and tested to meet relevant global IS standards:
  - The battery circuitry is fully encapsulated
  - The radio circuit has a stored energy limitation, which prevents internal sparking or overheating in the unlikely event of a circuit failure
  - Component and conductor spacing and protective coatings prevent short circuits caused by dust or atmospheric contamination

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

Secure communications

- Radio inhibit and uninhibit to allow management of misplaced or stolen radios
- Supports end-to-end encryption, including AES encryption
- Tait EnableProtectKeyFill Device, Key Management Facility, and Over the Air Rekeying
- Tait EnableProtect Advanced System Key ensures only authorized personnel can access radio software and configuration

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SPECIFICATIONS

GENERAL	
Frequency stability	±0.5ppm (-22°F to 140°F / -30°C to 60°C)
Channels/zones	1,000 – 2,000 channels/50 – 100 zones
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 2300 mAh battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) excluding knobs
Weight - With Li-Ion 2300 mAh battery	13.93oz (395g) – no antenna, 15.17oz (430g) with IS battery and antenna
Radio Operating temperature range	-20°C to 60°C (-4°F to 140°F) [T]
Water and dust protection	IP67 & IP65
ESD rating	+/- 4kV contact discharge and +/-8kV air discharge
Frequency increment/channel step	2.5/3.125/5/6.25kHz
Signalling options (Analog)	MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS). Selcall (5 - tone)
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

[T] Subject to Compliance, Ambient Temperature: T4 -20°C < Ta < +50°C, T3 -20°C < Ta < +60°C

TRANSMITTER	VHF	UHF	700/800MHZ
Frequency range	136-174 MHz (B1)	380-470 MHz (HB) 450-520 MHz (H7)	762-870 MHz (K5)
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	2.5W, 2W, 1W
Modulation limiting			
12.5/15kHz channel	±2.5kHz	±2.5kHz	±2.5kHz
25/30kHz channel [1]	±5kHz	±5kHz	±5kHz
FM hum and noise (analog)			
12.5kHz channel	-45dB	-40dB	-40dB
25kHz channel [1]	-48dB	-45dB	-45dB
Radiated and conducted emissions	-75dBc	-72dBc	-70dBc
Audio response (analog)	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (analog)	1.5% @ 1kHz, 60% deviation		

RECEIVER	VHF	UHF	700/800MHZ
Frequency range	136-174MHz (B1)	380-470 MHz (HB) 450-520 MHz (H7)	762-776 & 850-870 MHz (K5)
Analog Sensitivity 12dB SINAD	0.22µV (-120dBm)	0.22µV (-120dBm)	0.22µV (-120dBm)
Digital Sensitivity (P25) 5% BER	0.22µV (-120dBm)	0.22µV (-120dBm)	0.22µV (-120dBm)
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)	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			
12.5kHz channel	-45dB	-40dB	-40dB
25kHz channel [1]	-48dB	-45dB	-45dB
Rated audio	0.5 watt	0.5 watt	0.5 watt

* Wideband operation subject to FCC regulations

[1] Wideband operation is not available in the USA in some bands

CHARGER AND BATTERY	
Charger options (Li-Ion)	IS compatible desktop and vehicle chargers
Battery shift life (P25 Phase 2, standard config)	Li-Ion 2300 mAh 15 hours (5/5/90)
Battery shift life (Analog mode, standard config)	Li-Ion 2300 mAh 11.5 hours (5/5/90)

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SPECIFICATIONS

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

REGULATORY DATA

USA (CFR 47)

HAZLOC / INTRINSICALLY SAFE COMPLIANCE

Class I Division I, Groups A, B, C, D. Class II Division I, Groups E, F, G. Class III Division I

T3 Tamb = -20degC to 60degC
T4 Tamb = -20degC to 50degC

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 subscriber units, 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.

The words "Tait" , "TAIT AXIOM", "Tait Unified", the "Tait " logo and are trademarks of Tait International Limited.

Tait International Limited 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. In addition, all our Regional Head Offices are certified to ISO 9001.

Quality Management ISO 9001

Environment Management ISO 14001:2015

Occupational Health & Safety Management ISO 45001:2018

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