TP9000 PORTABLE RADIOS

DMR | P25 | ANALOG

Exceptional audio and connectivity options.
Built Tait Tough for critical communications.

TAIT TOUGH

tait communications

DECEMBER 2024 VERSION 2.0

Preface

PLEASE READ BEFORE USING THIS PRODUCT CATALOG.

COPYRIGHT:

SCOPE:

This catalog describes TP9000 Portable Radios.

Custom product and non-standard equipment is not listed. Please contact your Tait representative if you require information on any product not listed within this book.

PRODUCT STATUS:

Every care has been taken to assure that the products meet the respective regulatory requirements. However, Tait does not warrant that all products meet specific country requirements.

If you have any questions regarding product suitability please contact your Tait representative.

TERMS AND CONDITIONS OF SALE:

All sales and quotations for Tait products and services are subject to the current version of the Tait Standard Terms and Conditions for Supply. For a copy of the Terms and Conditions please contact your Tait representative.

CONFIDENTIALITY:

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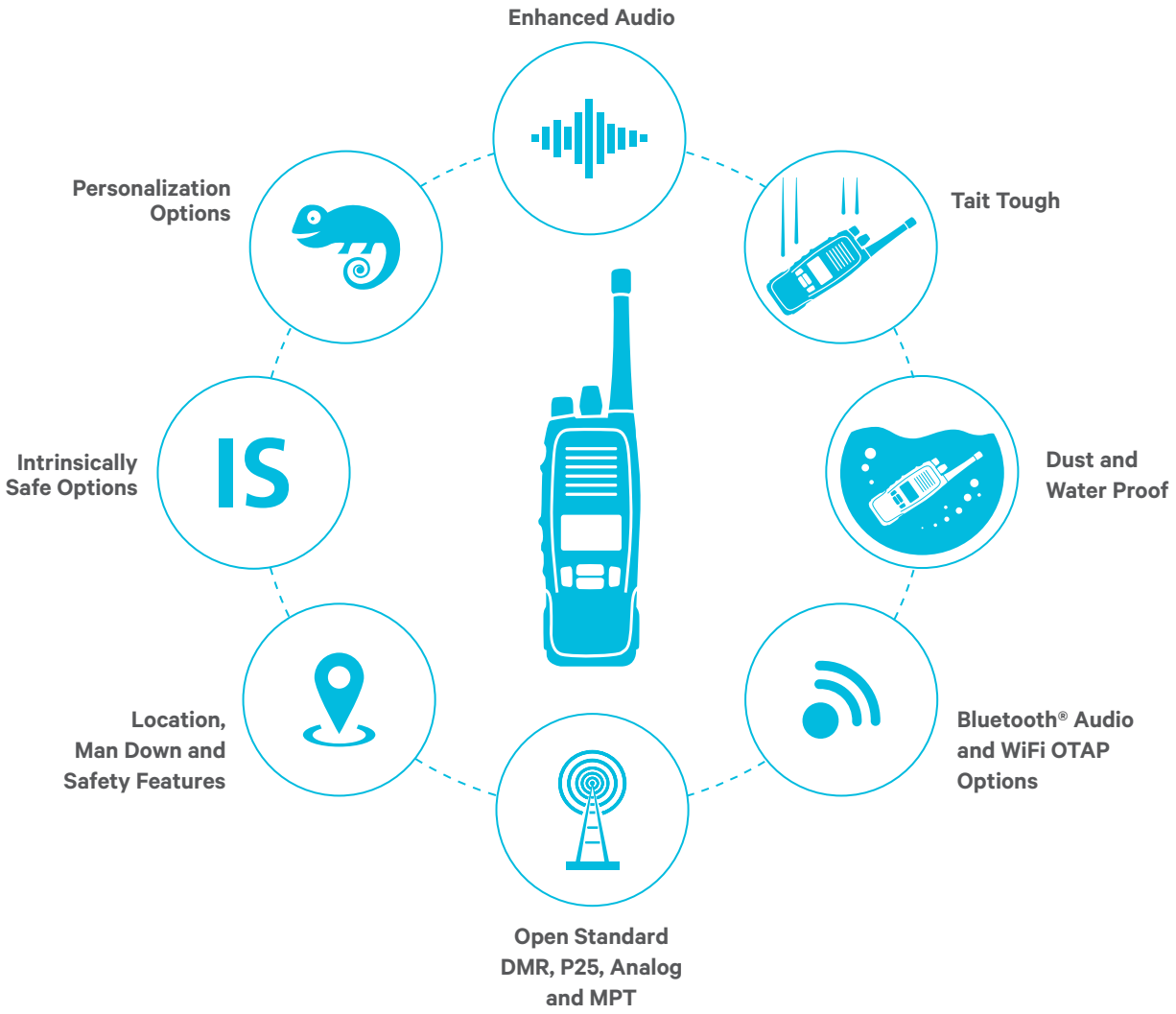
UPDATE AND CHANGES:

The information within the product catalog is subject to change without notice and shall not form part of any contract. This information is issued for guidance purposes only. Please note that not all frequency bands and power outputs are available in all markets.

The Tait TP9000 series features loud, clear audio, so teams can work safely in challenging conditions. Built Tait Tough, TP9000 portables can survive harsh punishment. Choose from DMR or P25 models, each supporting Analog mode and a host of safety and efficiency features.



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Contents

WHY TAIT TOUGH?

The Toughest Radios in the Industry

Tait radio users have tough jobs. Police, Fire, Emergency Services, Mining, Oil and Gas, and Utility workers face challenging conditions every day. They need communications equipment that is totally reliable. That's why Tait engineers our products to work together to create some of the toughest, mission critical communications solutions ever made.

Ingress Protection (IP)

- All TP9000 series radios are dustproof and waterproof. The catalog pages and specification sheets for each Tait portable radio display the IP rating for that product
- IP68: can be immersed in water:
  At a depth of two meters for thirty minutes
  At a depth of one meter for two hours
- IP67: Can be immersed in water:
  At a depth of one meter for thirty minutes
- IP65: Tested against water jets, 12.5L per min, 30kPa from three meters for at least three minutes

Drop Protection by Design

- Dual shot molded rubberised corners
- Strong battery attachment
- Screen recess

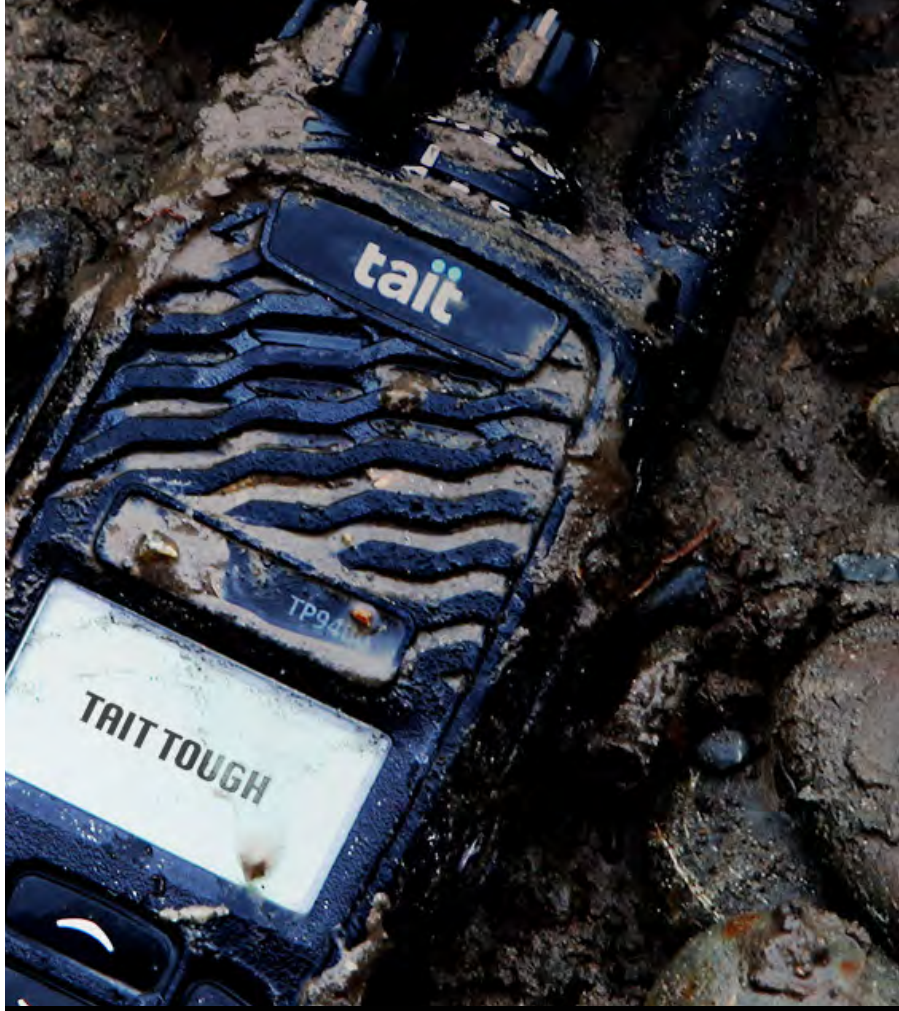
Military Standard MIL-STD-810G/H*

Designed and tested for protection against:

- Low pressure
- Low temperature
- High temperature
- Temperature shock
- Solar radiation
- Rain
- Humidity
- Salt fog
- Dust
- Vibration
- Shock

*Supersedes MIL-STD-810C, D, E, F. TP9700/9800/9900 meet 810H. TP9300/9400/9500/9600 meet 810G

To learn more about Tait Tough solutions download our guide **"10 ways to protect and Strengthen your LMR System"**.



TAIT TOUGH

VISIT TAITTOUGH.COM

Exceptional Audio Tailored to Your Needs

Your audio experience is vital to quality, critical communications. Hear each call first time, to keep the channel clear for other team members that need it to do their work. Hear that call for help, first time, for improved safety outcomes.

9 ways to tailor and optimize your audio experience

		Available for...
1	**DIGITAL VOCODER**: Tait radios incorporate DMR and P25 standard compliant vocoders, which digitize human voice and can reduce many types of background noise.	Digital modes All TP3 & 9000 series radios
2	**DIGITAL NOISE SUPPRESSION**: Tait radios use additional software techniques to enhance clear speech and minimize background noise.	Digital modes All 9000 series radios
3	**ACTIVE NOISE CANCELATION**: Voice and background noise are received with two separate microphones, to isolate and significantly reduce background noise.	TP9500, TP9600, TP9700, TP9800 and TP9900 portables in analog & digital modes Custom solutions for mobiles
4	**PROGRAMMABLE VARIABLES**: A range of factors such as microphone sensitivity level, audio balance, and equalization, can all be tailored in the programming application.	Analog & digital modes All products
5	**SPEAKER OPTIONS**: Choose the model with the right speaker size, wattage and output for your needs.	Analog & digital modes
6	**ACCESSORY SELECTION**: Choose from a range of earpieces, headsets, and microphones, appropriate for your role and environment.	Analog & digital modes All products
7	**USER TRAINING**: Following proper radio etiquette can make a big difference to received audio quality. Free online training is available at **www.taitradioacademy.com/courses/best-practice-radio-users/**	Analog & digital modes All products
8	**RF PERFORMANCE**: Choose devices and network equipment that have the best RF performance. Aspects such as selectivity and sensitivity can maximize coverage, minimize interference so that you can make and receive calls in more places.	Analog & digital modes All products
9	**TAIT SERVICES**: Coverage Design and Verification Services helps you to make and receive calls in more places. The Tait Services team can advise on audio experience, product and accessory selection, configuration, and much more.	Analog & digital mode All products

Location Services for DMR, P25 and Analog

With the addition of a GNSS receiver, location data can be transmitted across analog and digital networks for more efficient operations and also can significantly enhance worker safety when combined with the Lone Worker feature that is standard in every TM9000 series mobile.

Some location services require optional software features to be enabled, as well as careful system design.

Not all features are available all of the time, and are dependent on other settings.

DMR SPECIFIC FEATURES

- Transmit location data during voice calls in DMR Tier 2 and Tier 3 modes
- DMR Tier 3 fast polling is ideal for large fleets to have the most accurate and timely updates to enhance the safety and efficiency of your operation
- If location polling is not configured on your DMR Tier 2 or Tier 3 networks, users can send their location data to other radios as a text message

LOCATION DISPLAY

Location data can also be displayed on the radio screen. Vital information for radio users is available even if off the network, or if polling and transmission is not configured:

- Latitude / Longitude
- Latitude / Longitude with Decimal-Minutes
- Decimal Latitude / Longitude
- Altitude (in meters above or below mean sea level)
- Local Time
- UTM Coordinates / Relative Position / UTC Time
- Course/Speed
- Age

UTM Zone Number

Latitude/Longitude with Decimal-Minutes

Latitude/Longitude with Decimal-Minutes (3 decimal places)

Latitude/Longitude in Decimal Degrees

The radio's current course and speed

UTC: Coorindated Universal Time 24 hour clock

The radio's altitude in metres above sea-level

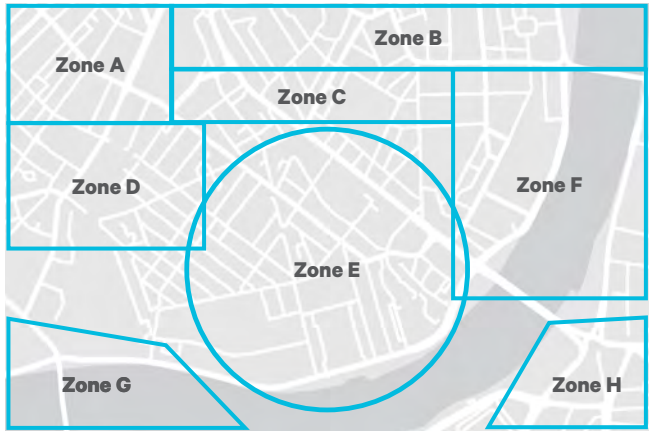
MGRS: Military Grid Reference System

TAIT GEOFENCING OPTION

Automated Location Controlled Radio Behavior

- GeoFencing is the process of creating a virtual geographic boundary, which triggers a programmed response when a radio enters or leave the area
- Tait offers control of a significant range of functions and features, as well as configurability options that can be tailored to customer specific needs
- Tait GeoFencing has the ability to operate independently of any such software application, and the real power of this feature is that the Tait radio uses its own location data to automatically perform actions that make the radio easier to use and enhance worker safety
- Tait GeoFencing is not constrained by system polling rate reporting limitations and therefore can utilize much higher polling rates within the radio (currently one poll per second)
- Tait GeoFencing is fully compatible with Tait EnableFleet

GeoFence zone examples



Fleet Management Best Practice

Tait EnableFleet provides total visibility and management of your radio fleet from a secure, central point of control.

It is a software tool that makes best practice configuration management easy, and can be hosted in the cloud or on customer premises.

With Tait EnableFleet you can connect to your devices and program both configuration updates as well as upgrade to new software versions in a number of ways:

- Wired connection
- OTAP (Over the Air Programming) via digital trunked radio networks
- OTAP (Over the Air Programming) via WiFi networks

TAIT ENABLEFLEET OPTIONS AND COMPATIBILITY

CONNECTION METHOD	CONVENTIONAL ANALOG	MPT	DMR TIER 2 CONVENTIONAL	DMR TIER 3 TRUNKED	P25 CONVENTIONAL	P25 TRUNKED
WIRED PROGRAMMING	TP9300/TP9400 TP9500/TP9600 TP9700/TP9800 TP9900 TM9300/TM9400 TM9700/TM9800	TP9300 TP9500 TP9700 TP9900 TM9300 TM9700	TP9300 TP9500 TP9700 TP9900 TM9300 TM9700	TP9300 TP9500 TP9700 TP9900 TM9300 TM9700	TP9400 TP9600 TP9800 TP9900 TM9400 TM9800	TP9400 TP9600 TP9800 TP9900 TM9400 TM9800
OTAP VIA DIGITAL TRUNKED NETWORKS				TP9300 TP9500 TP9700 TP9900 TM9300 TM9700		TP9400 TP9600 TP9800 TP9900 TM9400 TM9800
OTAP VIA WIFI NETWORKS	TP9500/TP9600 TP9700/TP9800 TP9900 TM9300 TM9400*	TP9500 TP9700 TP9900 TM9300*	TP9500 TP9700 TP9900 TM9300*	TP9500 TP9700 TP9900 TM9300*	TP9600 TP9800 TP9900 TM9400*	TP9600 TP9800 TP9900 TM9400*

* with TAIT AXIOM Mobile

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TP9000 Family Tree

Each radio in the TP9000 series is a highly flexible and configurable software platform that can be tailored to suit your current and future needs. There are a variety of models and options to meet a wide range of critical communications needs.

TP9000 SERIES

DMR, MPT ANALOG

TP9700 TP9500 TP9300

ENHANCED CONNECTIVITY

- Conventional Analog
- MPT Trunking
- DMR Tier 2 Conventional Digital
- DMR Tier 3 Digital Trunking
- Simulcast Compatible (Analog and Digital)
- Multiband[1]
- Bluetooth® Audio[2]
- WiFi OTAP Capable[3]
- Broadband Voice and Data (WiFi and Cellular/LTE)[4]

P25 ANALOG

TP9800 TP9600 TP9400

ENHANCED CONNECTIVITY

- Conventional Analog
- P25 Conventional Digital
- P25 Phase 1 Digital Trunking
- P25 Phase 2 Digital Trunking
- Simulcast Compatible (Analog and Digital)
- Multiband[1]
- Bluetooth® Audio[2]
- WiFi OTAP Capable[3]
- Broadband Voice and Data (WiFi and Cellular/LTE)[4]

TP9900

[1] Multiband capability with TP9700/TP9800/TP9900

[2] Bluetooth® audio not available on TP9310 or Intrinsically Safe portable radios

[3] TP9500, TP9600, TP9700, TP9800, and TP9900 have WiFi built in as standard for OTAP applications.

[4] TP9300, TP9400, TP9500, TP9600, TP9700, and TP9800 can add WiFi and Cellular Connectivity with the TAIT AXIOM Wearable (excluding intrinsically Safe portables).

SYMBOLS USED IN THIS DOCUMENT

● STANDARD ▲ OPTIONAL **ITEM CODE** IS Intrinsically Safe Radio standards: DMR P25

TAIT DMR

A smart investment, made to evolve

Tait DMR is a digital communications platform that delivers commercial and worker safety benefits for mission critical users. With the capability to carry both voice and data, Tait DMR gives you a powerful combination of flexibility, control and resiliency. Tait DMR products support conventional analog and MPT operation, and the digital modes follow the DMR Association's open standard, ensuring interoperability with other compliant equipment.

Tait customers have tough jobs in industries that place challenges on users and equipment. A reliable communications solution is a critical safety tool. That is why Tait engineered the TP9000 series to be the toughest radios ever made.

DMR and Analog Selection Guide

TP9000 series feature overview

Many features and options are available across the range of TP9000 portables and each model offers something unique to meet the needs of a variety of users and environments. This comparison table is a brief overview of the options available for your fleet. The frequency band guide on the following page is also an important reference. For detailed feature comparisons, refer to **page 20**.

FEATURE		TP9300	TP9361 (IS) TP9358 (IS) [5] TP9368 (IS) [5]	TP9558 (IS) [5] TP9568 (IS) [5]	TP9500 TP9700
ENHANCED CONNECTIVITY	Conventional Analog MPT1327 Trunking DMR Tier 2 Conventional Digital	●	●	●	●
	DMR Tier 3 Digital Trunking	▲	▲	▲	▲
	Multiband				▲TP9700
	Bluetooth® audio [1]	●		●	●
	WiFi OTAP capability [2]			▲	▲
	Broadband Voice and Data (WiFi and Cellular/LTE) [3]	▲		▲	▲
KEYPAD AND DISPLAY OPTIONS	No display, no keypad	●			
	Display with 4 navigational keys	Monochrome	Monochrome	Color	Color
	Display with full keypad	Monochrome	Monochrome	Color	Color
EXCEPTIONAL AUDIO	Speaker Rating	2W	1W	1.5W	3W
	Vocoder and Digital Noise Suppression	●	●	●	●
	Dual Mic Active Noise Cancelation			●	●
SAFETY FEATURES	Location Services (GNSS/GPS) Man Down and Lone Worker	●	●	●	●
	Tait GeoFencing automation	▲	▲	▲	▲
	Intrinsically Safe options		●	●	
ACCESSORIES	Standard (Shared) Tait audio accessories, batteries and chargers	▲		▲	●
	Intrinsically Safe audio accessories, batteries and chargers		▲		
PERSONALIZATION	Color face plate options (See **page 51**.)	●	● [4]	●	●
	Labeling options (See **page 52**.)	▲		▲	▲

● Standard feature

▲ Optional feature

1 Bluetooth not supported on TP9310, TP9358, TP9361 or TP9368

2 TP9500 is WiFi OTAP capable and requires Tait EnableFleet

3 All TP9000 portables can add WiFi and Cellular Connectivity with the TAIT AXIOM Wearable (excluding Intrinsically Safe portables).

4 Only applies to TP9358/68

5 USA & Canada only

DMR and Analog Frequency Bands

Tait has an extensive range of frequency band options available. Please refer to individual product specification sheets or contact your Tait representative for more detailed information about frequency options, RF performance, and regulatory compliance.

FREQUENCY CODE	FREQUENCY BAND	TP9310	TP9355 TP9360	TP9361 (IS)	TP9358 (IS) [5] TP9368 (IS) [5]	TP9558 (IS) [5] TP9568 (IS) [5]	TP9755 TP9760
B1	136-174MHz	●	●	●	●	●	●
C0	174-225MHz	●	●		●		
HK [1, 2]	378-470MHz [1,2]	●	●			●	●
HB [2]	380-470MHz [2]			●	●		●
H7 [2]	450-520MHz [2]	●	●	● [4]	●		●
K5 [3]	757-870MHz [3]		●	●	●		●
L3	896-941MHz						●

1 HK 378-470MHz hardware supersedes the H5 400-470MHz hardware previously available.

2 The UHF band radios are approved for use in Citizen Band (CB) in Australia and New Zealand when programmed to meet the requirements of AS/NZS4365. Tait cannot guarantee full performance to the published specifications when the HK or HB radios are operating at the CB frequencies

3 FCC and IC approved (ETSI approval not available)

4 IECEx and ATEX only

5 USA & Canada only

● Standard feature

▲ Optional feature

1 USA and Canada only

TP9755
4 KEY

TP9760
16 KEY

TP9700

Flexible, Rugged, and Reliable Communications

The world's first professional DMR multiband radios. Increase worker safety and productivity across multiple radio networks and frequency bands with the TP9700 Multiband Portable, a highly reliable and versatile radio designed to adapt to a wide variety of operations

FEATURES

- **Seamless Multiband Performance**
  - 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.
- **Future proof multi-mode flexibility**
  - Conventional Analog
  - MPT1327 Trunking
  - DMR Tier 2 Conventional Digital
  - DMR Tier 3 Digital Trunking
- **DMR open standards provide choice and interoperability**
- **Enhanced Usability**
  - Lightweight and compact
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Glove friendly control options
  - Zone selector switch
  - Four programmable function keys
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait Geofencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810H
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over DMR trunked networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked
- **A range of batteries, charging options and accessories are available (refer to the accessories catalog)**

PERSONALIZATION

COLOR LABEL

TP9555
4 KEY

TP9560
16 KEY

TP9500

Enhanced Usability

TP9500 portables enhances the user experience with 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.

FEATURES

- **Future proof multi-mode flexibility**
  - DMR Tier 3 digital trunking option
  - DMR Tier 2 conventional digital
  - MPT 1327 trunking
  - Conventional analog FM
  - Broadband Voice and Data (WiFi and Cellular/LTE)[1]
- **DMR open standards provide choice and interoperability**
- **Enhanced Usability**
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Clearest audio with Digital Noise Suppression
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Angled control for gloved use
  - Zone selector switch
  - Four programmable function keys
- **A range of batteries, charging options and accessories are available (refer to the TP9000 Portable Radios Options & Accessories Catalog)**
- **Personalize your radio:**
  - Available in Black, Yellow, Orange, Red and Hi-Vis Green
  - Labeling Options
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Indoor location option, interacting with Bluetooth® iBeacons
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
  - Encryption options
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over DMR Tier 3 networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked

PERSONALIZATION

COLOR  LABEL 

[1] All TP9000 portables can add WiFi and Cellular Connectivity with the TAIT AXIOM Wearable (excluding Intrinsically Safe portables).

TP9310
0 KEY

TP9355
4 KEY

TP9360
16 KEY

TP9300

Tough Reputation

The TP9300 is a tough portable radio for critical communications. Supporting multiple DMR and analog modes, safety-enhancing features, and a rugged, robust design, the TP9300 is engineered to perform in challenging environments.

FEATURES

- **Future proof multi-mode flexibility**
  - DMR Tier 3 digital trunking option
  - DMR Tier 2 conventional digital
  - MPT 1327 trunking
  - Conventional analog FM
  - Broadband Voice and Data (WiFi and Cellular/LTE)[1]
- **DMR open standards provide choice and interoperability**
- **Usability**
  - 2W speaker
  - Clear audio with Digital Noise Suppression
  - Bluetooth® connectivity for wireless audio accessories[2]
  - Side mounted connector for choice of audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of batteries, charging options and accessories are available** (refer to the TP9000 Portable Radios Options & Accessories Catalog)
- **Personalize your radio:**
  - Available in Black, Yellow, Orange, Red and Hi-Vis Green
  - Labeling Options
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS for Location Services[3]
  - Location information can be displayed on the radio screen*
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Indoor location option, interacting with Bluetooth® iBeacons
  - Send and receive text and status messages
  - Encryption options
  - Intrinsically Safe options (Refer to TP9361 information)
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - Over the Air Programming for configuration changes and software upgrades over DMR Tier 3 networks

Note:

1 All TP9000 portables can add WiFi and Cellular Connectivity with the TAIT AXIOM Wearable (excluding Intrinsically Safe portables).

2 Bluetooth® audio functionality not supported on TP9310 models

3 GNSS location capability is a software option in some TP9310 packages, but is enabled by default in all other TP9300, TP9361 and TP9500 radios. TP9310 can transmit location data when enabled and can also utilize the Tait GeoFencing option, but has no screen to display location information on the radio

PERSONALIZATION

COLOR  LABEL 

TP9361 IIA
16 KEY

TP9361 IIC
16 KEY

TP9361 IS

Intrinsically Safe

The TP9361 portable is designed and tested for operation in hazardous environments, meeting global IS standards (IECEx, ANZEx, ATEX, AEx, CAEx). These Tait Tough radios are blue, an internationally recognized color for IS portables.

IIA MODEL

- 1-5W power output (VHF), 1-4W (UHF), 1-2.5W (700/800MHz)

IIC MODEL

- 1W power output

FEATURES

- **Future proof multi-mode flexibility**
  - DMR Tier 3 digital trunking option
  - DMR Tier 2 conventional digital
  - MPT 1327 trunking
  - Conventional analog FM
- **DMR open standards provide choice and interoperability**
- **Usability**
  - 1W speaker
  - Clear audio with Digital Noise Suppression
  - Side mounted connector for choice of IS audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of IS accessories are available**
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen*
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
  - Encryption options
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP67 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**

Note:

- Consult the TP9361 specification sheet for full compliance data
- Only approved IS accessories can be used with the TP9361 (Refer to the Portable Radio Options & Accessories Catalog)
- Only a qualified person should attempt to categorize a hazardous location and advise the communication devices that may be used
- Tait staff and channel partners should all complete the Intrinsically Safe awareness training course on **partnerinfo.taitcommunications.com**

TP9358
4 KEY

TP9368
16 KEY

TP9358 and TP9368 IS

Intrinsically Safe (US Only)

The TP9358 and TP9368 portables are designed and certified in the US for operation in Division 1 hazardous environments.

UL913 CLASS I, II, III, DIVISION 1

- Class I – Gas, Groups A, B, C, D
- Class II – Dust, Groups E, F, G
- Class III – Fibers & Flyings

FEATURES

- **Future proof multi-mode flexibility**
  - DMR Tier 3 digital trunking option
  - DMR Tier 2 conventional digital
  - MPT 1327 trunking
  - Conventional analog FM
- **DMR open standards provide choice and interoperability**
- **Usability**
  - 1W speaker
  - Clear audio with Digital Noise Suppression
  - Side mounted connector for choice of IS audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of IS accessories are available**
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen*
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
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  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
  - Tait EnableFleet Configuration Management options
  - Personalize your radio:
  - Available in Black, Yellow, and Hi-Vis Green
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**

Note:

- Consult the TP9358/68 specification sheet for full compliance data
- Only approved Div1 IS accessories can be used with the TP9358 and TP9368 (Refer to the TP9000 Portable Radios Options & Accessories Catalog)
- Only a qualified person should attempt to categorize a hazardous location and advise the communication devices that may be used
- Tait staff and channel partners should all complete the Intrinsically Safe awareness training course on **partnerinfo.taitcommunications.com**

PERSONALIZATION

COLOR

Software Feature Enabler (SFE) Descriptions

TP9000 series DMR and Analog

A number of Software Feature Enabler (SFEs) are available for TP9300, TP9500, and TP9700 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

BASELINE SOFTWARE LICENCES (FOR NEW RADIO ORDERS)	
Included by default in all current production TP9300, TP9500, and TP9700 radios, with some exceptions for TP9310 and TP9361 as noted *. Can also be ordered to upgrade existing fleets that may not have these features deployed.	
DMR TIER 2 CONVENTIONAL DIGITAL	**TPAS097**
MPT ANALOG TRUNKING MPT1327 Analogue Trunking mode enables the portable radio to be used on MPT networks. The TP9300, TP9500, and TP9700 can roam seamlessly between MPT and DMR Trunked systems, providing an easy migration path from MPT to a DMR trunked system.	**TPAS031**
ALPHANUMERIC ID Permits an alphanumeric label to be embedded in digital voice transmissions, for talking party identification. * *The TP9310 has no screen to display talking party ID, but is able to transmit its own.*	**TPAS072**
BLUETOOTH® AUDIO Allows the radio to pair with approved Bluetooth® devices. * *The TP9310 has no display to facilitate Bluetooth® pairing* * *Intrinsically Safe radios do not permit use of Bluetooth®.*	**TPAS082**
LOCATION SERVICES & DISPLAY The radio supports GNSS (Global Navigation Satellite System). The radio's location information can be displayed on the radio screen or sent over a network for use with location reporting (polling and unsolicited) applications.	**TPAS081**
ENHANCED LOCATION REPORTING Enables distance-based location reporting. Reports can be sent at a set distance, at different distances depending on the current speed or if the bearing, or altitude changes by a prescribed amount.	**TPAS089**

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series DMR and Analog

A number of Software Feature Enabler (SFEs) are available for TP9300, TP9500, and TP9700 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

BASELINE SOFTWARE LICENCES (FOR NEW RADIO ORDERS)	
Included by default in all current production TP9300, TP9500, and TP9700 radios, with some exceptions for TP9310 and TP9361 as noted *. Can also be ordered to upgrade existing fleets that may not have these features deployed.	
ARC4 ENCRYPTION Enables ARC4 (40 Bit) encryption. ARC4 is a basic level of encryption that offers privacy from less sophisticated attacks. The programming application configures the way the encryption keys are used, and loads the encryption keys into the radio (does not require Tait Enable Protect Key Management System or Key Fill Device). ** ARC4 encryption is supported in DMR Tier 2 and Tier 3 modes.*	**TPAS102**
VOICE ANNUNCIATION The radio can be set up to audibly announce radio ID, channel numbers, zones, network, battery level and certain feature activation/deactivations such as lone worker.	**TPAS087**
OTAP OTAP (Over the Air Programming) allows the configuration and firmware of Tait radios to be remotely and wirelessly updated by Tait EnableFleet using the data services of a DMR trunked network, or via WiFi networks. OTAP is supported by Tait EnableFleet version 2.0 and above. ** OTAP via DMR Trunked networks requires TPAS080 to be enabled. WiFi OTAP is not supported in all radios - refer to product specifications.*	**TPAS075-DMR**
20/25KHZ WIDEBAND This licence enables 20/25kHz wideband operation on all frequencies. Local regulations on usage of wideband operation must be observed.	**TPAS083**

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series DMR and Analog

A number of Software Feature Enabler (SFEs) are available for TP9300, TP9500, and TP9700 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. Adding software licences to existing fleets may require a radio firmware update as well as the feature licence – please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

MULTIBAND OPERATION

Enables TP9700 to operate seamlessly over two or more frequency bands

- Dual Band SFE — **TPAS133**
- Multiband SFE — **TPAS134**
- Dual to Multiband Upgrade SFE — **TPAS135**

DMR TIER 3 DIGITAL TRUNKING

Enables DMR Tier 3 trunking operation in TP9300, TP9500, and TP9700 radios. The TP9300 can roam seamlessly between DMR Tier 3 networks and analog MPT trunked networks. — **TPAS080**

GEOFENCING AUTOMATION

Enables automated location controlled radio behavior. Automatically change mode, change channel and send alert messages based on pre-programmed software boundaries. Multiple regions of various simple and/or complex shapes and sizes and overlays can be configured and a set of actions can be associated with entry/exit from these regions. Actions such as sending status messages, controlling GPIO, and activating features such as lone worker can be achieved. — **TPAS105-DMR**

** Refer to the Tait GeoFencing manual for detailed information.*

INDOOR LOCATION - BLUETOOTH BEACON SERVICES

Tait portable radios interact with Bluetooth iBeacons installed throughout a building to send information over a Tait DMR network through a Tait gateway for viewing in a location software application. — **TPAS117**

Contact Tait for system design advice

** Intrinsically Safe radios do not permit use of Bluetooth.*

ENCRYPTION - DES 56 BIT

Enables the use of DES (56 Bit) encryption on DMR systems for voice communications. The Programming Application configures the way the encryption keys are used, and loads the encryption keys into the radio (Does not require Tait Enable Protect Key Management System or Key Fill Device). — **TPAS095**

** TP9310 is unable to display the status of encrypted or clear channels, however TP9310 can use DES and AES encryption where the DMR Trunked Network has one encryption key enabled on a per-network basis that the user cannot control.*

ENCRYPTION - AES 128/256 BIT - SINGLE KEY

Enables use of AES encryption (128-bit/256-bit) on DMR systems for voice communications. The Programming Application configures the way the encryption keys are used, and loads the encryption key into the radio (Does not require Tait Enable Protect Key Management System or Key Fill Device). — **TPAS058-DMR**

** TP9310 is unable to display the status of encrypted or clear channels, however TP9310 can use DES and AES encryption where the DMR Trunked Network has one encryption key enabled on a per-network basis that the user cannot control.*

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series DMR and Analog

A number of Software Feature Enabler (SFEs) are available for TP9300, TP9500, and TP9700 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. Adding software licences to existing fleets may require a radio firmware update as well as the feature licence – please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

USER IP DATA

Enables IP forwarding between a DMR Tier 3 bearer and a serially-connected data peripheral. This allows third party IP-based applications to send and receive packet data between a local data peripheral and a remote host, utilising the traffic channels of the Tait DMR network.

** Requires TPAS080 DMR Tier 3 optional SFE to be enabled.*

TPAS056-DMR

Detailed Feature Comparison

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
CONVENTIONAL FEATURES (ANALOG AND DIGITAL)					
Networks	1	26	26	26	26
Channels	48	4000	4000	4000	4000
Zones	3	26	26	26	26
Scan groups (with up to 50 members per group)	16	300	300	300	300
Repeater talkaround (Analog)	●	●	●	●	●
Scanning	●	●	●	●	●
Dual priority scanning, editable scanning and groups		●	●	●	●
Voting	●	●	●	●	●
Programmable group membership		●	●	●	●
Nuisance channel delete from group		●	●	●	●
Busy channel lockout (transmit inhibit)	Limited	●	●	●	●
Full Off Air Call Set Up (FOACSU)	●	●	●	●	●
Radio check (DMR Tier 2 conventional mode)	Rx Only	●	●	●	●
Push and Talk Call Setup (PATCS)	●	●	●	●	●
Computer Controlled Data Interface (CCDI)	●	●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
CONVENTIONAL ANALOG FEATURES					
Auto Quiet Timer	●	●	●	●	●
Deferred Calling	●	●	●	●	●
Squelch override	●	●	●	●	●
CTCSS (Continuous Tone Controlled Squelch System)	●	●	●	●	●
DCS (Digitally Coded Squelch)	●	●	●	●	●
MDC1200 (En/Decode)	●	●	●	●	●
SELCALL (Selective calling)	●	●	●	●	●
Multiple SELCALL Networks	●	●	●	●	●
Programmable User Defined SELCALL Tone Set	●	●	●	●	●
Programmable Group Tone	●	●	●	●	●
2-Tone Decode (Type-99)	●	●	●	●	●
Monitor function	●	●	●	●	●
FFSK	●	●	●	●	●
MPT1327 FEATURES					
CTCSS (Continuous Tone Controlled Squelch System) on traffic channel	●	●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
TRUNKED FEATURES (ANALOG AND DIGITAL)					
Multiple Network Capability	4	4	4	4	4
Talkgroups	16	512 lists	512 lists	512 lists	512 lists
Zones	3	1000	1000	1000	1000
Work groups	48	1000	1000	1000	1000
Alphanumeric presets		100	100	100	100
Network name display		●	●	●	●
Channel display		●	●	●	●
Call time limit display		●	●	●	●
Advanced hunt routines	●	●	●	●	●
Manual site select		●	●	●	●
Broadcast group call	●	●	●	●	●
Interfleet calls	●	●	●	●	●
PABX calls (Private Automatic Branch Exchange)	Via preset	●	●	●	●
PSTN calls (Public Switched Telephone Network)	Via preset	●	●	●	●
Preset calls	●	●	●	●	●
Priority call (3 Level Priority)	DMR Tier 3	DMR Tier 3	DMR Tier 3	DMR Tier 3	DMR Tier 3
PTT redial	●	●	●	●	●
Call in Absence indicator	Audible Alert Only	●	●	●	●
Dynamic regrouping	●	●	●	●	●
Radio Access Protocol (RAP) (Map27)	●	●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
GENERAL FEATURES (ANALOG AND DIGITAL, CONVENTIONAL AND TRUNKED)					
Alphanumeric labels	Encode Only	●	●	●	●
Status labels		●	●	●	●
ANI (Automatic Number Identification) Conventional analog, and DMR modes – not supported in MPT mode.	Encode Only	●	●	●	●
Caller / Talker ID		●	●	●	●
Call queuing		●	●	●	●
Channel presets Conventional analog, MPT and DMR Tier 3 modes – not supported in DMR Tier 2 mode	●	●	●	●	●
Priority call	●	●	●	●	●
Group calls	●	●	●	●	●
Conference group calls MPT and DMR modes, and via SELCALL in conventional analog mode	●	●	●	●	●
Individual calls MPT and DMR modes, and via SELCALL in conventional analog mode	Trunked Only	●	●	●	●
All Identity Call MPT and DMR modes - not supported on conventional analog mode	●	●	●	●	●
Join busy group MPT and DMR modes - not supported on conventional analog mode	Trunked Only	●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Features continue on the next page

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
GENERAL FEATURES (ANALOG AND DIGITAL, CONVENTIONAL AND TRUNKED) (continued)					
Call diversion Conventional analog, MPT and DMR Tier 3 modes – not supported on DMR Tier 2 mode	●	●	●	●	●
Automatic call back Conventional analog, MPT and DMR Tier 3 modes – not supported on DMR Tier 2 mode		●	●	●	●
DMR call alert		●	●	●	●
Status messages TP9310 0nly via CCDI (conventional) and RAP (trunked)	▲	●	●	●	●
Short data messages TP9310 0nly via CCDI (conventional) and RAP (trunked)	▲	●	●	●	●
Packet Data / User IP Data Supported in DMR Tier 2 and Tier 3 modes – not supported in conventional analog or MPT modes.		▲	▲	▲	▲
Transmit lockout	●	●	●	●	●
Transmit low power	●	●	●	●	●
Transmit timer	●	●	●	●	●
DTMF (Dual Tone Multi Frequency) encode		●	●	●	●
DTMF dialing Only supported on 16 key models		TP9360	TP9361 TP9368	TP9558 TP9568	TP9560 TP9760

● Standard feature

▲ Optional feature

[1] USA and Canada only

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
LOCATION AND SAFETY FEATURES					
Internal GNSS Some TP9310 packages require a software licence to activate	●	●	●	●	●
Transmit location during voice calls Digital modes only. Some TP9310 packages require a software licence to activate.	●	●	●	●	●
Location over SDM (MPT modes only)		●	●	●	●
Tait GeoFencing automation		▲	▲	●	▲
Indoor Location Interaction with Bluetooth iBeacons requires software licence and compatible mapping software application.		▲		▲	▲
Lone Worker	●	●	●	●	●
Man Down	●	●	●	●	●
Programmable emergency key	●	●	●	●	●
Emergency call	●	●	●	●	●
SECURITY OPTIONS					
Voice Inversion Scrambler Supported in conventional analog and MPT modes	●	●	●	●	●
Encryption, ARC4 Supported in DMR Tier 2 and Tier 3 modes	●	●	●	●	●
Encryption, DES 56 bit Supported in DMR Tier 2 and Tier 3 modes	▲	▲	▲	▲	▲
Encryption, AES 256 bit Supported in DMR Tier 2 and Tier 3 modes	▲	▲	▲	▲	▲
Security lock on power-up Requires a Personal Identification Number (PIN)		●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
SECURITY OPTIONS (continued)					
Radio inhibit and uninhibit (also known as stun and revive)	●	●	●	●	●
Remote monitor (enables microphone and transmitter remotely) Only supported in DMR Tier 2 mode	●	●	●	●	●
Programming Security Tait EnableProtect Advanced System Key	▲	▲	▲	▲	▲
USER INTERFACE					
Display type **Display size**	None	Monochrome 32.2 x 15.1mm	Monochrome 32.2 x 15.1mm	Color 35.3mm x 26.5mm	Color 35.3mm x 26.5mm
Contrast adjust		●	●	●	●
Backlight control		●	●	●	●
Battery level indicator		●	●	●	●
Received Signal Strength Indicator (RSSI)		●	●	●	●
Shared menu structure Common with TM9000 mobile radios		●	●	●	●
Programmable channel selector	●	●	●	●	●
Programmable three way zone switch	●	●	●	●	●
Programmable function keys (including emergency key)	4	4	4	4	4
Key lock		●	●	●	●
Adjustable audible indicators (keypress tones / confidence tones)	●	●	●	●	●
Quiet mode & silent mode	●	●	●	●	●
Audible indicators (key beeps / confidence tones)	●	●	●	●	●

● Standard feature

▲ Optional feature

[1] USA and Canada only

Features continue on the next page

Detailed Feature Comparison (continued)

TP9000 series DMR and Analog features

FEATURE	TP9310	TP9355 TP9360	TP9361 (IS) TP9358 (IS) [1] TP9368 (IS) [1]	TP9558 (IS) [1] TP9568 (IS) [1]	TP9500 TP9700
USER INTERFACE (continued)					
Audible indicator control	●	●	●	●	●
Voice Annunciations	●	●	●	●	●
Speaker rating	2W	2W	1W	1.5W	3W
Auto Noise Reduction (ANR)	●	●	●	●	●
Vocoder and Digital Noise Suppression DMR modes - not supported in conventional analog and MPT modes	●	●	●	●	●
Dual mic Active Noise Cancelation (ANC) Supported in analog and digital modes				●	●
Bluetooth® audio		●			●
Over the Air Programming	● [3]	● [3]	● [3]	● [3]	● [2 3]
DMR Tier 3	▲	▲	▲	▲	▲
Go Ahead Tone / Proceed to Talk Tone	●	●	●	●	●
Side-tone generation	●	●	●	●	●
TAIT TOUGH					
IP65 and IP68	●	●		●	●
IP65 and IP67			●	●	
MIL-STD-810G	●	●	●	●	●
MIL-STD-810H					TP9700
Two-shot molded construction	●	●	●	●	●
Water shedding grille	●	●	●	●	●
Battery overcharge protection	●	●	●	●	●

● Standard feature

▲ Optional feature

1 USA and Canada only

2 WIFI capability comes standard

3 Over the Air Programming requires DMR Tier 3 (an optional feature) to operate

TAIT P25

Instant, reliable communications is just the beginning

First responders around the world trust Tait for multi-agency coordination in the most challenging environments. We are dedicated to designing and delivering proven P25 solutions that are robust, interoperable, and secure. With support for analog, P25 Phase 1 and P25 Phase 2 open standards, Tait can provide public safety agencies with complete end-to-end solutions to meet your unique organizational requirements.

Tait P25 and analog portable radios are designed and built to withstand the challenging conditions public safety users operate in. Packed with a range of safety-enhancing features, our portables provide the clear audio, reliable connection, and interoperability that those serving our communities depend on.

P25 and Analog Selection Guide

TP9000 series feature overview

Many features and options are available across the range of TP9000 portables and each model offers something unique to meet the needs of a variety of users and environments. This comparison table is a quick guide to the models to take a closer look at to include in your fleet. The frequency band guide on the following page is also an important reference. For detailed feature comparisons, refer to **page 45**.

FEATURE		TP9400	TP9461 (IS) TP9458 (IS) [7] TP9468 (IS) [7]	TP9658 (IS) [7] TP9668 (IS) [7]	TP9600 TP9800	TP9900
ENHANCED CONNECTIVITY	Conventional Analog	●	●	●	●	●
	P25 Conventional Digital	▲	▲	●	▲	▲
	P25 Phase 1 Digital Trunking	▲	▲	●	▲	▲
	P25 Phase 2 Digital Trunking	▲	▲	●	▲	▲
	DMR Tier 2 Conventional Digital					▲
	DMR Tier 3 Digital Trunking					▲
	Multiband			●	▲ [5]	▲
	Bluetooth® audio [1]	▲		▲ [6]	▲	▲
	WiFi OTAP capability [2]				▲	▲
	Broadband Voice and Data (WiFi and Cellular/LTE) [3]	▲			▲	▲
KEYPAD AND DISPLAY OPTIONS	Display with four navigational keys	Monochrome	Monochrome	Color	Color	
	Display with full keypad	Monochrome	Monochrome	Color	Color	Color
EXCEPTIONAL AUDIO	Speaker rating	2W	1W	1.5W	3W	3W
	Vocoder and Digital Noise Suppression	●	●	●	●	●
	Dual Mic Active Noise Cancelation				●	●
SAFETY FEATURES	Location Services (Refer to **page 38** for Software Options)	▲	▲	▲	▲	▲
	Man Down and Lone Worker	●	●	●	●	●
	Tait GeoFencing automation	▲	▲	▲	▲	▲
	Intrinsically Safe options		●	●		
ACCESSORIES	Standard (Shared) Tait audio accessories, batteries and chargers	▲		▲	▲	▲
	Intrinsically Safe audio accessories, batteries and chargers		▲	▲		
PERSONALIZATION	Color face plate options (See **page 51**)	●	● [4]	● [4]	●	
	Labeling options (See **page 52**)	▲			▲	▲

● Standard feature

▲ Optional feature

1 Bluetooth not supported on TP9458, TP9461, TP9468 Intrinsically Safe models

2 TP9600 and TP9800 is WiFi OTAP capable and requires Tait EnableFleet

3 All TP9000 portables can add WiFi and Cellular Connectivity with the TAIT AXIOM Wearable (excluding Intrinsically Safe portables).

4 Only applies to TP9458, TP9468, TP9658, and TP9668

5 Multiband optional functionality applies to TP9800 only

6 Bluetooth connectivity applies to wireless audio accessories only

7 USA & Canada only

P25 and Analog Frequency Bands

Tait has an extensive range of frequency band options available. Please refer to individual product specification sheets or contact your Tait representative for more detailed information about frequency options, RF performance, and regulatory compliance.

FREQUENCY CODE	FREQUENCY BAND	TP9455 TP9460	TP9461 (IS) TP9458 (IS) [5] TP9468 (IS) [5]	TP9655 TP9660	TP9658 (IS) TP9668 (IS)	TP9855 TP9860 TP9900
B1	136-174MHz	●	●	●	● [6]	●
	378-520MHz				● [6]	●
HK [1, 2]	378-470MHz [1,2]	●		●		●
HB [2]	380-470MHz [2]		●		●	●
H7 [2]	450-520MHz [2]	●	● [4]	●	●	●
K5 [3]	757-870MHz [3]	●	●	●	●	●
L3	896-941MHz					●

1 HK 378-470MHz hardware supersedes the H5 400-470MHz hardware previously available

2 The UHF band radios are approved for use in Citizen Band (CB) in Australia and New Zealand when programmed to meet the requirements of AS/NZS4365. Tait cannot guarantee full performance to the published specifications when the HK and HB radios are operating at the CB frequencies

3 FCC and IC approved (ETSI approval not available)

4 TP9461 IS IECEx and ATEX only

5 US & Canada only

TP9900

Rugged, Lightweight, Multiprotocol

Multiple bands. P25 and DMR protocols. One portable. Significantly improve community safety outcomes with enhanced interoperability between first responders, schools, utilities and other public sector organizations with the TP9900, a compact, rugged, reliable portable radio able to access P25, DMR and analog channels in multiple frequency bands.

FEATURES

- **Seamless Multiband Performance**
  - 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.
- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
  - DMR Tier 2 Digital Conventional [1]
  - DMR Tier 3 Digital Trunking [1]
- **P25 open standards provide choice and interoperability**
- **Enhanced Usability**
  - Lightweight and compact
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Easy grip controls
  - Zone selector switch
  - Four programmable function keys
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait Geofencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over P25 trunked networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked
- **A range of batteries, charging options and accessories are available (refer to the accessories catalog)**

[1] Refer to pages 20-27 for a detailed DMR feature list

PERSONALIZATION

COLOR LABEL

TP9855
4 KEY

TP9860
16 KEY

TP9800

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.

FEATURES

- **Seamless Multiband Performance**
  - 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.
- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Enhanced Usability**
  - Lightweight and compact
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Glove friendly control options
  - Zone selector switch
  - Four programmable function keys
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait Geofencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810H
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over P25 trunked networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked
- **A range of batteries, charging options and accessories are available (refer to the accessories catalog)**

PERSONALIZATION

COLOR LABEL

TP9800 Wildland Fire Radio

Rugged, Multiband, Field Programmable

Increase firefighter safety and effectiveness across multiple radio networks and frequency bands with the TP9800, a versatile, lightweight, field programmable portable radio with AA battery pack for maximum reliability in remote operations.

FEATURES

- **Seamless Multiband Performance**
  - 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.
- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Enhanced Usability**
  - Front Panel Programming Option [1]
  - Radio to Radio Zone Cloning [1, 2]
  - User selectable CTCSS/DCS/NAC picklists
  - Lightweight and compact
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Glove friendly control options
  - Zone selector switch
  - Four programmable function keys
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions, programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait Geofencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Find out more on our website www.taittough.com**
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over P25 trunked networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked
- **A range of batteries, charging options and accessories are available including AA Battery Clamshell option**

PERSONALIZATION

COLOR LABEL

1 Custom software required - FCC guidelines under part 90. FCC 90.203(g)(1) must be followed, and it is the end user's responsibility to ensure that they are authorized to use any and all radio frequencies programmed into the radio.

2 Cloning cable required

TP9655
4 KEY

TP9660
16 KEY

TP9600

Enhanced Usability

TP9600 portables enhances the user experience with 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.

FEATURES

- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Enhanced Usability**
  - Large color screen
  - 3W speaker
  - Clear audio in analog and digital modes with Dual Mic Active Noise Cancelation
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Angled controls for gloved use
  - Zone selector switch
  - Four programmable function keys
- **A range of batteries, charging options and accessories are available** (refer to the TP9000 Portable Radios Options & Accessories Catalog)
- **Personalize your radio:**
  - Available in Black, Yellow, Orange, Red and Hi-Vis Green
  - Labeling Options
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over P25 trunked networks
  - WiFi OTAP capability for configuration changes and software upgrades independent of LMR mode, analog or digital, conventional or trunked

PERSONALIZATION

COLOR LABEL

TP9455
4 KEY

TP9460
16 KEY

TP9400

Built to withstand challenging conditions

The TP9400 is a tough portable radio for mission critical communications. Supporting multiple P25 and analog modes, encryption options, safety-enhancing features, and a rugged, robust design, the TP9400 is engineered to meet the demanding needs of first responders.

FEATURES

- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Usability**
  - 2W speaker
  - Clear audio with Digital Noise Suppression
  - Increased voice usability with integrated Bluetooth® connectivity for wireless audio accessories
  - Side mounted connector for choice of audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of batteries, charging options and accessories are available** (refer to the TP9000 Portable Radios Options & Accessories Catalog)
- **Personalize your radio:**
  - Available in Black, Yellow, Orange, Red and Hi-Vis Green
  - Labeling options
- **Safety and efficiency features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP68 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
  - Wired Connection for all operating modes
  - OTAP for configuration changes and software upgrades over P25 trunked networks

PERSONALIZATION

COLOR  LABEL 

TP9461 IIA 16 KEY

TP9461 IIC 16 KEY

TP9461 IS

Intrinsically Safe

The TP9461 portable is designed and tested for operation in hazardous environments, meeting global IS standards (IECEx, ANZEx, ATEX, AEx, CAEx). These Tait Tough radios are blue, an internationally recognized color for IS portables.

IIA MODEL

- 1-5W power output (VHF), 1-4W (UHF), 1-2.5W (700/800MHz)

IIC MODEL

- 1W power output

FEATURES

- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP67 Dustproof and Waterproof
  - MIL-STD-810G
- **Usability**
  - 1W speaker
  - Clear audio with Digital Noise Suppression
  - Side mounted connector for choice of IS audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of IS accessories are available**
- **Safety and efficiency features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS option to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Tait EnableFleet Configuration Management options**

Note:

- Consult the TP9461 specification sheet for full compliance data
- Only approved IS accessories can be used with the TP9461 (Refer to the Portable Radio Options & Accessories Catalog)
- Only a qualified person should attempt to categorize a hazardous location and advise the communication devices that may be used
- Tait staff and channel partners should all complete the Intrinsically Safe awareness training course on **partnerinfo.taitcommunications.com**

TP9458
4 KEY

TP9468
16 KEY

TP9458 and TP9468 IS

Intrinsically Safe (US Only)

The TP9458 and TP9468 portables are designed and certified in the US for operation in Division 1 hazardous environments.

UL913 CLASS I, II, III, DIVISION 1

- Class I – Gas, Groups A, B, C, D
- Class II – Dust, Groups E, F, G
- Class III – Fibers & Flyings

FEATURES

- **Future proof multi-mode flexibility**
  - Conventional Analog
  - P25 Conventional Digital
  - P25 Phase 1 Digital Trunking
  - P25 Phase 2 Digital Trunking
- **P25 open standards provide choice and interoperability**
- **Usability**
  - 1W speaker
  - Clear audio with Digital Noise Suppression
  - Side mounted connector for choice of IS audio accessories
  - Zone selector switch
  - Four programmable function keys
- **A range of IS accessories are available**
- **Safety and Efficiency Features**
  - Lone Worker and Man Down functions
  - Programmable emergency key
  - Integrated GNSS to improve efficiency and safety for Location Services
  - Location information can be displayed on the radio screen
  - Tait GeoFencing option for Automated Location Controlled Radio Behavior
  - Send and receive text and status messages
- **Encryption options, including Tait EnableProtect KeyFill Device, Key Management Facility, and Over the Air Rekeying**
- **Engineered Tait Tough for demanding environments**
  - Find out more on our website **www.taittough.com**
  - IP65 & IP67 Dustproof and Waterproof
  - MIL-STD-810G
  - Two-shot molding for extra durability
  - Water shedding speaker grille
- **Tait EnableFleet Configuration Management options**
- **Personalize your radio:**
  - Available in Black, Yellow, and Hi-Vis Green

Note:

- Consult the TP9458/68 specification sheet for full compliance data
- Only approved Div1 IS accessories can be used with the TP9458 and TP9468 (Refer to the TP9000 Portable Radios Options & Accessories Catalog)
- Only a qualified person should attempt to categorize a hazardous location and advise the communication devices that may be used
- Tait staff and channel partners should all complete the Intrinsically Safe awareness training course on **partnerinfo.taitcommunications.com**

PERSONALIZATION

COLOR

Software Feature Enabler (SFE) Descriptions

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

BASELINE SOFTWARE LICENCES (FOR NEW RADIO ORDERS)	
Included by default in all current production TP9400, TP9600, and TP9800 radios, with some exceptions for TP9461 as noted *. Can also be ordered to upgrade existing fleets that may not have these features deployed.	
ENHANCED CHANNEL CAPACITY Increases the maximum number of channels supported by the radio (across all zones) from 1000 channels to 2000 channels.	**TPAS086**
LOCATION DISPLAY Enables the ability to display the radio's location information on the radio screen.	**TPAS015**
ALPHANUMERIC ID Permits an alphanumeric label to be embedded in digital voice transmissions, for talking party identification. This is a Tait-proprietary feature which does not interoperate with other vendor's radios. *Not functional in P25 Phase 2 Trunked operation.*	**TPAS072**
VOICE ANNUNCIATION The radio can be set up to audibly announce radio ID, channel numbers, zones, network, battery level and certain feature activation/deactivations such as lone worker.	**TPAS087**
BLUETOOTH® AUDIO Allows the radio to pair with approved Bluetooth® devices. * *Not functional on TP9358, TP9368 or TP9461.* *TP9358, TP9368 and TP9461 Intrinsically Safe does not permit use of Bluetooth®.*	**TPAS082**
P25 TRUNKED PSTN This licence enables full keypad portables to utilize PSTN (Public Switch Telephone Network) dialing via P25 trunked networks. An example configuration is network PSTN gateway from a radio unit to a PSTN subscriber and a PSTN subscriber to radio unit or radio group. Only available for use on some trunked networks - contact your Tait representative for advice. *Requires TP9000 full keypad P25 portables and TPAS055 as a prerequisite to operate.*	**TPAS064**

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

BASELINE SOFTWARE LICENCES (FOR NEW RADIO ORDERS)	
Included by default in all current production TP9400, TP9600, and TP9800 radios, with some exceptions for TP9461 as noted *. Can also be ordered to upgrade existing fleets that may not have these features deployed.	
MDC1200 Enables use of the MDC1200 Analogue conventional signalling method (Motorola-proprietary). Features include push-to-talk identification, selective calling and emergency alarm.	**TPAS059**
2-TONE DECODE Two-tone signaling (also known as Type-99) is in-band, two-tone sequential signaling. Two-tone signaling is used for selective calling of individual radios, groups of radios, or pagers.	**TPAS065**
5-TONE SELCALL Enables a 'selective calling' feature that uses sequences of audible tones to isolate calls intended for specific radios. Each radio operating on a Selcall network can have a unique identity assigned. Selcall is also known as multi-tone or five-tone.	**TPAS092**
OTAP OTAP (Over the Air Programming) allows the configuration and firmware of Tait radios to be remotely and wirelessly updated by Tait EnableFleet using the data services of a P25 trunked network, or via WiFi networks. OTAP is supported by Tait EnableFleet version 2.0 and above. ** OTAP via P25 trunked networks requires TPAS055 to be enabled. WiFi OTAP is not supported in all radios - refer to product specifications.*	**TPAS075**
20/25KHZ WIDEBAND This licence enables 20/25kHz wideband operation on all frequencies. Local regulations on usage of wideband operation must be observed.	**TPAS083**

Software Feature Enabler (SFE) Descriptions (continued)

TP9900 Series Multiprotocol Portables

A number of Software Feature Enabler (SFEs) are available for TP9900 Multiprotocol Multiband Portable

All SFEs are licenced per feature per radio.

What to consider when ordering a TP9900 portable radio:

- When P25 AES and/or P25 Geofencing SFE's are purchased, the corresponding DMR SFEs will also be enabled
- The DMR Tier 3 Trunking SFE (TPA080) is available as a separate option

BASELINE SOFTWARE LICENCES (FOR TP9900 MULTIPROTOCOL, MULTIBAND PORTABLES)	
Included by default in all current production TP9900. The following P25 SFEs are loaded as standard Can also be ordered to upgrade existing fleets that may not have these features deployed.	
MDC1200 Enables use of the MDC1200 Analogue conventional signalling method (Motorola-proprietary). Features include push-to-talk identification, selective calling and emergency alarm.	**TPAS059**
2-TONE DECODE Two-tone signaling (also known as Type-99) is in-band, two-tone sequential signaling. Two-tone signaling is used for selective calling of individual radios, groups of radios, or pagers.	**TPAS065**
5-TONE SELCALL Enables a 'selective calling' feature that uses sequences of audible tones to isolate calls intended for specific radios. Each radio operating on a Selcall network can have a unique identity assigned. Selcall is also known as multi-tone or five-tone.	**TPAS092**
P25 TRUNKED PSTN This licence enables full keypad portables to utilize PSTN (Public Switch Telephone Network) dialing via P25 trunked networks. An example configuration is network PSTN gateway from a radio unit to a PSTN subscriber and a PSTN subscriber to radio unit or radio group. *Requires TP9000 full keypad P25 portables and TPAS055 as a prerequisite to operate.*	**TPAS064**
LOCATION DISPLAY Enables the ability to display the radio's location information on the radio screen.	**TPAS015**
ALPHANUMERIC ID Permits an alphanumeric label to be embedded in digital voice transmissions, for talking party identification.	**TPAS072**
VOICE ANNUNCIATION The radio can be set up to audibly announce radio ID, channel numbers, zones, network, battery level and certain feature activation/deactivations such as lone worker.	**TPAS087**
BLUETOOTH® AUDIO Allows the radio to pair with approved Bluetooth® devices. ** Intrinsically Safe models do not permit use of Bluetooth®.*	**TPAS082**
OTAP OTAP (Over the Air Programming) allows the configuration and firmware of Tait radios to be remotely and wirelessly updated by Tait EnableFleet using the data services of a P25 or DMR trunked network, or via WiFi ** OTAP via P25 trunked networks requires TPAS055 to be enabled. OTAP via DMR Trunked networks requires TPAS080 to be enabled.*	**TPAS075**

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES AND BUNDLES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. An SFE key shown as part of a bundle can also be ordered individually if required.

P25 CAI AND CONVENTIONAL DIGITAL OPERATION

Enables the P25 Standard CAI (Common Air Interface) and Conventional Digital Operation - FDMA 12.5kHz channel bandwidth.

TPAS050

MULTIBAND OPERATION

Enables TP9800 to operate seamlessly over two or more frequency bands

- Dual Band SFE — **TPAS133**
- Multiband SFE — **TPAS134**
- Dual to Multiband Upgrade SFE — **TPAS135**

CONVENTIONAL DIGITAL BUNDLE - TP9900 ONLY*

Includes:

- TPAS097 - DMR Tier 2 Conventional Digital
- TPAS081 - Location Services & Display - Supports global GNSS and location reporting.
- TPAS031 - MPT Analog Trunking - Enables the portable radio to be used on MPT networks. Roam seamlessly between MPT and DMR Trunked systems.

TPAS150

P25 PHASE 1 TRUNKING BUNDLE

Includes:

- TPAS050 - P25 CAI and Conventional Digital Operation - FDMA 12.5kHz channel bandwidth
- TPAS055 - P25 Phase 1 Trunking Operation - FDMA 12.5kHz channel bandwidth
- TPAS100 - Link Layer Authentication - allows a P25 Trunked network to authenticate the radio before granting it service. Authentication uses a cryptographically encoded (AES-128) challenge/response protocol in accordance with TIA-102.AACE.

TPAS151

P25 PHASE 2 TRUNKING BUNDLE

Includes:

- TPAS050 - P25 CAI and Conventional Digital Operation - FDMA 12.5kHz channel bandwidth
- TPAS055 - P25 Phase 1 Trunking Operation - FDMA 12.5kHz channel bandwidth
- TPAS091 - P25 Phase 2 Trunking Operation - TDMA 2 channels per 12.5kHz channel (equivalent to 6.25kHz channel bandwidth)
- TPAS100 - Link Layer Authentication - allows a P25 Trunked network to authenticate the radio before granting it service. Authentication uses a cryptographically encoded (AES-128) challenge/response protocol in accordance with TIA-102.AACE.

TPAS152

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES AND BUNDLES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. An SFE key shown as part of a bundle can also be ordered individually if required.

P25 CAP ENCRYPTION AES (MULTIKEY) / DES BUNDLE

Includes:

- TPAS058 - AES Encryption - Multikey
- TPAS057 - DES Encryption

TPAS153

P25 CAP (Compliance Assessment Program) requires AES 256 Bit Encryption. DES Encryption is provided only for backwards compatibility with and migration from older equipment. TPAS058 enables the device to utilise multiple encryption keys and is the highest level of encryption offered by Tait.

Requires Tait EnableProtect KFD (Key Fill Device) to load keys via wired interface. Optional Tait EnableProtect KMF (Key Management Facility) to manage encryption keys, and optional OTAR (Over The Air Rekeying) SFE to deploy encryption keys wirelessly.

P25 NON-CAP ENCRYPTION BUNDLE ARC4 / DES

Includes:

- TPAS057 - DES Encryption
- TPAS102 - ARC4 Encryption

TPAS154

If P25 Compliance or if a higher level of encryption is not required this bundle can provide a more affordable, basic level of encryption. DES is 56 Bit. DES and ARC4 are a basic level of encryption that offers privacy from less sophisticated attacks.

P25 OTAR (OVER THE AIR REKEYING)

Includes:

- TPAS054 - P25 Base OTAR - Enables the ability for the radio to interact with a Key Management Facility over a P25 Conventional bearer, for the provisioning and management of encryption keys in the radio.
- TPAS063 - P25 DLI/Trunked OTAR - Enables the ability for the radio to interact with a Key Management Facility over a P25 Trunked bearer, for the provisioning and management of encryption keys in the radio.

TPAS156

P25 ADMINISTRATOR SERVICES

Enables the ability to transmit certain Supplementary Service requests from the radio on conventional P25 systems, such as Transmit radio inhibits & uninhibits, Status Requests, Call alert requests, Radio check requests, Radio unit monitoring, Messages. Such services are typically used by dispatchers.

TPAS051

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES AND BUNDLES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. An SFE key shown as part of a bundle can also be ordered individually if required.

P25 LOCATION SERVICES BUNDLE INCLUDING GEOFENCING AUTOMATION — TPAS155

Includes:

- TPAS067 - GPS Transmission - Enables the ability to transmit the radio's location on a Conventional radio bearer (Analog or P25). Multiple triggers can be configured for transmission of the location, for example a user stimulus (e.g. PTT press/release), Poll request from a remote host, activation of emergency). In the case of an Analog bearer, the GPS location is formatted as a Short Data Message. In the case of a P25 bearer, the GPS location is formatted as a Tier1 AVL location packet in accordance with TIA-102.BAJB.
- TPAS098 - Trunked GPS Transmission - Enables the ability to transmit the radio's location on a P25 Trunked radio bearer. Multiple triggers can be configured for transmission of the location, for example a user stimulus (e.g. PTT press/release), Poll request from a remote host, activation of emergency). The payload format can be configured as either P25 NMEA (uncompressed NMEA sentences over UDP/IP) or P25 Tier 2 (compressed XML format over UDP/IP in accordance with TIA-102.BAJB).
- TPAS089 - Enhanced Location Reporting - Enables distance-based location reporting. Reports can be sent at a set distance, at different distances depending on the current speed or if the bearing, or altitude changes by a prescribed amount.
- TPAS105 - GeoFencing Services - Enables automated location controlled radio behavior. Automatically change mode, change channel and send alert messages based on pre-programmed software boundaries. Multiple regions of various simple and/or complex shapes and sizes and overlays can be configured and a set of actions can be associated with entry/exit from these regions. Actions such as sending status messages, controlling GPIO, and activating features such as lone worker can be achieved.

Software Feature Enabler (SFE) Descriptions (continued)

TP9000 series P25 and Analog

A number of Software Feature Enabler (SFEs) are available for TP9000 portables.

All SFEs are licenced per feature per radio.

When ordering a new portable radio:

- Some SFE licences are included by default in the baseline feature set of current production radios as described below.
- Optional SFE licences can be ordered to enhance the capability of your new radio from the start.

Upgrading existing fleets:

- The configuration file of each radio will show what SFEs are currently licenced or installed.
- Additional SFEs can be ordered and deployed to upgrade and enhance existing fleets.
- Adding software licences to existing fleets may require a radio firmware update as well as the feature licence.
- Please refer to Tait EnableFleet for best practice in radio configuration management to effectively deploy firmware and feature upgrades.

OPTIONAL SOFTWARE LICENCES AND BUNDLES

Optional features may be licenced for each radio at the time of purchase, or can be ordered and deployed to existing fleets. An SFE key shown as part of a bundle can also be ordered individually if required.

DATA BUNDLE

Includes:

- TPAS056 - User IP Data - Enables IP forwarding between a P25 bearer and a serially-connected data peripheral. This allows third party IP-based applications to transfer data between a local data peripheral and a remote host.
- TPAS060 - Tait Radio API - Enables access to the CCDI/CCR Radio API. This API provides a wide range of control and monitoring of the radio. A user can make calls, transmit, change channels, monitor the state of the receive signal, etc. The SFE also permits use of 'transparent' data transfer between a peripheral connected to the ancillary port of the radio, and a conventional bearer. Capabilities may differ between modes of operation. See CCDI specification for details.

TPAS158

Requires TPAS050 or 151 or 152 as a prerequisite.

FRONT PANEL PROGRAMMING

TPAS118

TPAS118 - Front Panel Programming - A flashcode feature available on all TP9800 radios and their variances, that allows the user to program a limited number of channel parameters from the radio keypad without the need for a computer with a programming application.

Requires TP9800 with custom software and additional firmwares loaded - FCC guidelines under part 90. FCC 90.203(g)(1) must be followed, and it is the end user's responsibility to ensure that they are authorized to use any and all radio frequencies programmed into the radio.

RADIO-TO-RADIO ZONE CLONING

TPAS119

TPAS119 - Zone to zone cloning copies conventional zones from one radio to another. This feature allows the user to select the clone enabled zones from a source radio and clone them into a target radio.

Requires TP9800 with custom software and additional firmwares loaded. Cloning cable (T03-00053-0105) required to utilize cloning functionality. See Tait Accessories Catalog for more information.

Detailed Feature Comparison

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
CONVENTIONAL FEATURES (ANALOG AND DIGITAL)				
Conventional networks	26	26	26	26
Channels	4000	4000	4000	4000
Zones	100	100	100	100
Scan groups Up to 50 members per group, maximum of 2000 members total	300	300	300	300
Dual Mode operation Automatically change mode to receive and respond to both analog and conventional digital calls	●	●	●	●
Repeater talkaround	●	●	●	●
Scanning Dual priority scanning, talkgroup scanning, in zone scanning, editable scanning and editable scan groups	●	●	●	●
Voting	●	●	●	●
Nuisance channel delete from group	●	●	●	●
Radio check (P25 Conventional mode)	●	●	●	●
Front Panel Programming				▲[1]
Radio-to-Radio Zone Cloning				▲[1, 2]

● Standard feature

▲ Optional feature

1 Applies to TP9800 only, requires custom firmware and SFE key - FCC guidelines under part 90. FCC 90.203(g)(1) must be followed, and it is the end user's responsibility to ensure they are authorized to use any and all radio frequencies programmed into the radio.

2 Applies to TP9800 only, requires custom firmware, SFE key and cloning cable

3 For TP9900 DMR and MPT capabilities please refer to pages 20-27

4 USA & Canada only

Detailed Feature Comparison (continued)

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
CONVENTIONAL ANALOG FEATURES				
Squelch override	●	●		●
CTCSS (Continuous Tone Controlled Squelch System)	●	●		●
DCS (Digitally Coded Squelch)	●	●		●
DTMF (Dual Tone Multi Frequency) encode	●	●		●
DTMF Dialing Only supported on 16 key models	TP9460	TP9461 (IS) TP9468 (IS)		TP9660/TP9860/ TP9900
MDC1200 (En/Decode)	●	●		●
SELCALL (Selective calling)	●	●		●
Programmable Group Tone	●	●		●
2-Tone Decode (Type-99)	●	●		●
Monitor function	●	●		●
FFSK	●	●		●
TRUNKED FEATURES				
Talk group lists	26	26		26
Total talk group members	2000	2000		2000
Broadcast group call	●	●		●
PSTN (Public Switched Telephone Network) dialing / presets	▲	▲		▲
Dynamic regrouping	●	●		●
Call queuing	●	●		●
Trunking Failsoft	●	●		●

● Standard feature

▲ Optional feature

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4 USA & Canada only

Detailed Feature Comparison (continued)

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
GENERAL FEATURES				
Alphanumeric labels	●	●	●	●
Status labels	●	●	●	●
Digital Caller / Talker ID	●	●	●	●
P25 Priority call	●	●	●	●
Group calls	●	●	●	●
Individual calls	●	●	●	●
P25 call alert	●	●	●	●
P25 status messages	●	●	●	●
P25 Packet Data / User IP Data	▲	▲	▲	▲
Transmit low power	●	●	●	●
Transmit timer	●	●	●	●
Receives Linear Simulcast Modulation (LSM)	●	●	●	●
Computer Controlled Data Interface (CCDI)	▲	▲	▲	▲
AA Clamshell Battery Pack				▲[1]
LOCATION AND SAFETY FEATURES				
Internal GNSS	●	●	●	●
GNSS location receive and display	▲	▲	▲	▲
GNSS data transmission	▲	▲	▲	▲
Tait GeoFencing automation	▲	▲	▲	▲
Lone Worker	●	●	●	●
Man Down	●	●	●	●
Programmable emergency key	●	●	●	●
Emergency call	●	●	●	●

● Standard feature

▲ Optional feature

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4 USA & Canada only

Detailed Feature Comparison (continued)

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
SECURITY OPTIONS				
Voice Inversion Scrambler Supported in conventional analog mode	●	●	●	●
Encryption, ARC4	▲	▲	▲	▲
P25 Encryption, DES	▲	▲	▲	▲
P25 Encryption, AES 256 bit	▲	▲	▲	▲
FIPS 140-2 certified encryption module				●
P25 Over the Air Rekeying (OTAR) Requires Tait EnableProtect Key Management Facility	▲	▲	▲	▲
P25 Administration Service	▲	▲	▲	▲
Security lock on power-up Requires a Personal Identification number (PIN)	●	●	●	●
Radio inhibit and uninhibit (also known as stun and revive)	●	●	●	●
Remote monitor (enables microphone and transmitter remotely) Only supported in P25 conventional mode. Only radios with P25 Admin Services enabled can monitor other radios in the fleet.	●	●	●	●
Simplified System Key P25 Trunked Networks	●	●	●	●
Programming Security Tait EnableProtect Advanced System Key	▲	▲	▲	▲
Link Layer Authentication	▲	▲	▲	▲

● Standard feature

▲ Optional feature

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4 USA & Canada only

Detailed Feature Comparison (continued)

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
USER INTERFACE				
Display type **Display size**	Monochrome 32.2 x 15.1mm	Monochrome 32.2 x 15.1mm	Color 35.3mm x 26.5mma	Color 35.3mm x 26.5mm
Contrast adjust	●	●	●	●
Backlight control	●	●	●	●
Battery level indicator	●	●	●	●
Received Signal Strength Indicator (RSSI)	●	●	●	●
Shared Menu Structure Common with TM9000 mobile radios	●	●	●	●
Status Icons	●	●	●	●
Programmable channel selector	●	●	●	●
Programmable 3 way zone switch	●	●		●
Programmable function keys (including emergency key)	4	4	4	4
Programmable home group / channel button	●	●	●	●
Key Lock	●	●	●	●
Adjustable audible indicators (keypress tones / confidence tones)	●	●	●	●
Quiet mode and silent mode	●	●	●	●
Voice Annunciations	127 files	127 files	127 files	127 files (TP9600/ TP9800), 511 files (TP9900)

Features continue on the next page

● Standard feature

▲ Optional feature

1 Applies to TP9800 only, requires custom firmware and SFE key - FCC guidelines under part 90. FCC 90.203(g)(1) must be followed, and it is the end user's responsibility to ensure they are authorized to use any and all radio frequencies programmed into the radio.

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4 USA & Canada only

Detailed Feature Comparison (continued)

TP9000 series P25 and Analog features

FEATURE	TP9400	TP9461 (IS) TP9458 (IS) [4] TP9468 (IS) [4]	TP9658 (IS) [4] TP9668 (IS) [4]	TP9600 TP9800 TP9900 [3]
USER INTERFACE (continued)				
Speaker rating	2W	1W	1.5W	3W
Auto Noise Reduction (ANR) Conventional analog and MPT modes	●	●	●	●
Vocoder and Digital Noise Suppression P25 modes - not supported in conventional analog mode.	●	●	●	●
Dual mic active noise cancelation Supported in analog and digital modes			●	●
Bluetooth® audio	▲			▲
Over the Air Programming (OTAP) Configuration change and software upgrade requires Tait EnableFleet	● P25 Trunking	● P25 Trunking	● P25 Trunking	● P25 Trunking ● WiFi Capable
Frontal Panel Programming (FPP)				▲[1]
Radio-to-Radio Zone Cloning				▲[1, 2]
User Selectable CTC SS/DCS/NAC Picklists				●[1]
TAIT TOUGH				
IP65 and IP68	●			●
IP65 and IP67		●	●	
MIL-STD-810G	●	●	●	●
MIL-STD-810H				TP9800/TP9900
Two-shot molded construction	●	●	●	●
Water shedding grille	●	●	●	●
Protective power-down	●	●	●	●
Battery overcharge protection	●	●	●	●

● Standard feature

▲ Optional feature

1 Applies to TP9800 only, requires custom firmware and SFE key - FCC guidelines under part 90. FCC 90.203(g)(1) must be followed, and it is the end user's responsibility to ensure they are authorized to use any and all radio frequencies programmed into the radio.

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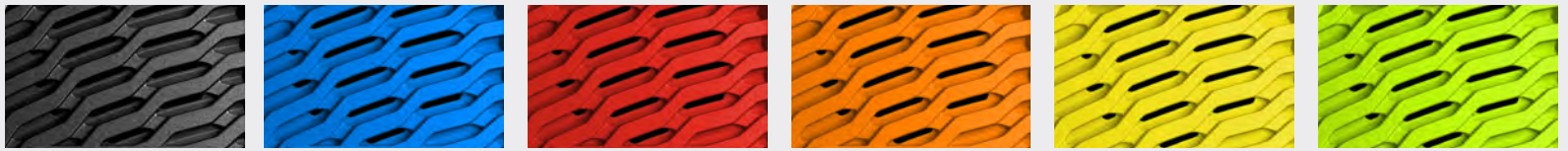
4 USA & Canada only

Face Plate Color Options

The TP9000 series is available in a range of colors for easy identification. Options are available to personalize colors for each user or group's needs. This table shows the models available in each color.



TP9300, TP9400, TP9400 IS (US & Canada Only) TP9500, TP9600, TP9700, TP9800	TP9361 IS TP9461 IS	TP9300, TP9400 TP9500, TP9600, TP9700, TP9800	TP9300, TP9400 TP9500, TP9600, TP9700, TP9800	TP9300, TP9400 TP9400 IS (US & Canada Only) TP9500, TP9600, TP9700, TP9800	TP9300, TP9400 TP9400 IS (US & Canada Only) TP9500, TP9600, TP9700 TP9800

- Blue is reserved for instant identification of Intrinsically Safe IECEx, ANZEx, ATEX, AEx, and CAEx hardware
- Use hi-vis colors for outdoor use
- Choose colors that are high-contrast to the environment they will be used in
- Use different colors to identify talkgroups or teams
- Select colors to match company branding
- Use a range of colors to identify radios with different access rights, encryption, broadcast rights, etc

Labeling Options

Personalize your portable radio

The TP9000 series features a range of options for applying professional and durable labels to personalize and identify your radios. The front panel of TP9000 models (excluding Intrinsically Safe radios) can support permanent labelling applied during manufacturing, or the application of durable printed labels. The front panel of 4 key TP9500, TP9600, TP9700, and TP9800 models also features a recess for printed labels.

Personalized labels have a number of applications

- Use labels to identify teams or talkgroups
- Identify an individual user's radio by name
- Apply your company branding to your radios
- Describe common operational procedures for users
- Describe channel groups for quick reference

LABEL RECESSES

1 Fits on TP9000 series radios

W 30 mm (1.181 in), H 6.54 mm (0.257 in)

2 Fits on TP9555, TP9655, TP9755, and TP9855 only

W 35 mm (1.377 in), H 22 mm (0.866 in)

Note: Labels are not currently supported on Intrinsically Safe radios.

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Label Printing

Tait recommends the use of specific label stock and printer for the best results in custom label printing. This method is BS5609 approved (GHS), offering the highest visual fidelity and durability.

LABEL PROPERTIES

- Chemical Resistant: Tested resistant to chemicals (e.g. heptane, HCL 37%, pH3 buffer).
- Abrasion Resistant: Tested resistance to abrasion. Passes BS5609 Section 3.
- Temperature resistant: Apply at minimum 10°F (-12°C). Adhesive service temperature -20°F to 220°F (-28°C to 104°C).
- Waterproof: Passes BS5609 Section 2, 90-day sea water submersion adhesion test.
- UV Resistant: Two years outdoor UV life.
- Tear Resistant: Durable synthetic label material resists tearing.

TP9500/TP9600 Die-Cut Labels Blank (500)	**T03-00080-0001**

EPSON COLORWORKS TM-C3500 LABEL PRINTER

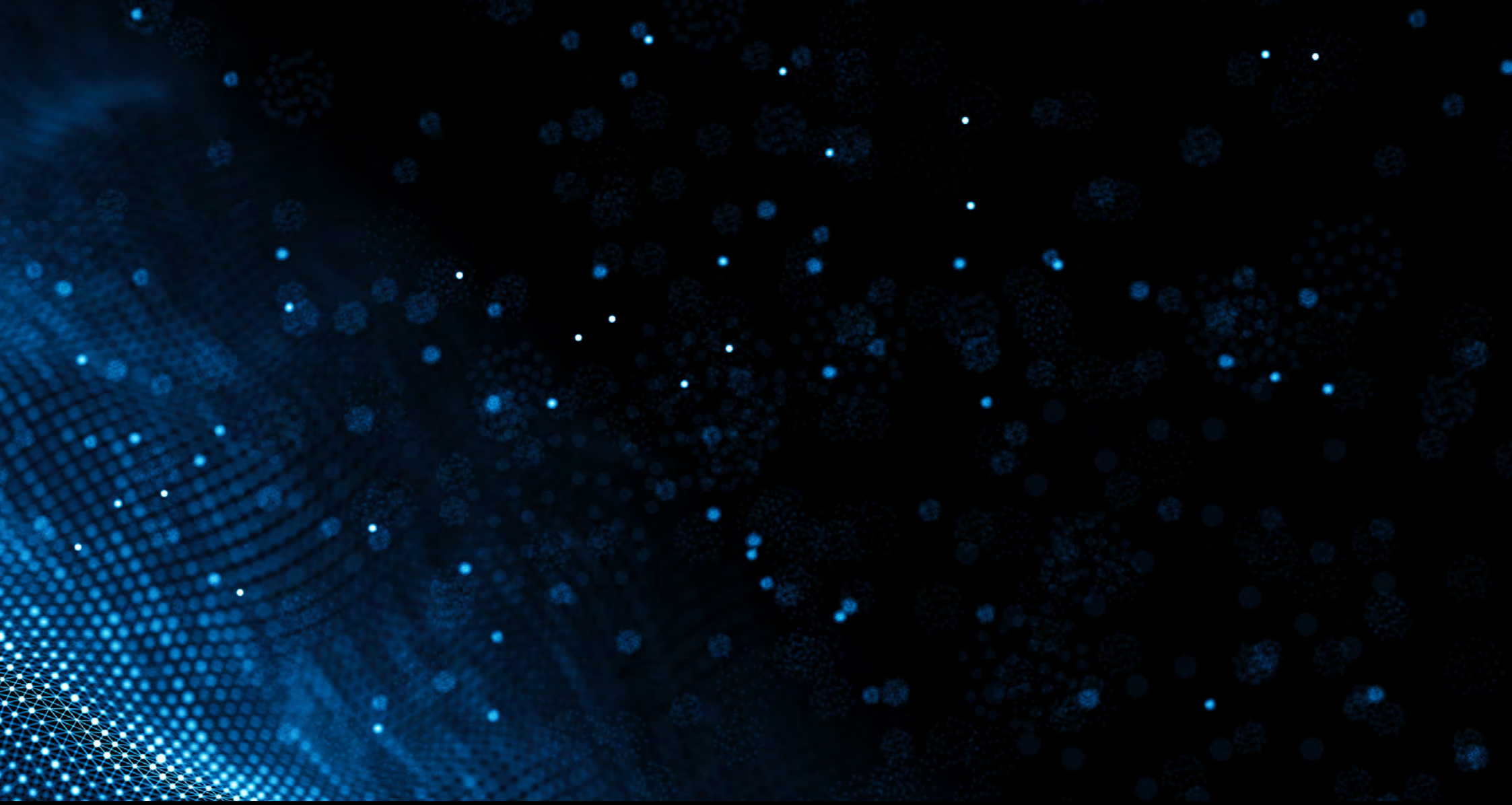
Labels die cut for Tait portables are specifically designed for this printer.

This is a high quality four color inkjet printer. It uses individual ink cartridges for efficient use of each ink.

The inks used are pigment based, not dye based, making the labels resistant to smudges and liquids.

The printer has both USB and Ethernet interfaces. It can handle both fan-fold and roll based media.

Tait can advise where to source printers. It is available globally from Amazon and other reputable vendors.



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