TP9700 MULTIBAND PORTABLES

FLEXIBLE, RUGGED AND RELIABLE COMMUNICATION

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.

tait communications

Preliminary Specifications

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

Glove-friendly control options for volume and channel selection.

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

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THE WORLD'S FIRST DMR MULTIBAND PORTABLES

The TP9700 is configurable to operate on any combination of VHF, UHF and 700/800MHz bands. Flexible and simple ordering and deployment of single, dual, and multiband operation at time of purchase, or subsequently over the air. Bands are not locked and can be reconfigured.

RUGGED TAIT TOUGH DESIGN

The TP9700 is certified IP68 dust and waterproof, IP65 protected from water jets and rated MIL-STD810G to withstand high and low temperatures, vibration, (drop tests), humidity, salt fog, and more.

COMMUNICATE WITH MULTIPLE ORGANIZATIONS

Easily communicate with other organizations without the need for several bulky devices. Roam between networks or switch frequency bands in direct mode.

MAXIMUM CONNECTIVITY

Connect to the range of networks you may encounter in current operations or future technology migrations: Conventional Analog, MPT1327, DMR Tier 2 Conventional, DMR Tier 3 Trunking, with integrated GNSS option for Location Services, Bluetooth® for wireless voice accessories, and WiFi OTAP.

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

EXCEPTIONAL AUDIO

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

ENHANCED WORKER SAFETY

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

ERGONOMIC USER EXPERIENCE

The TP9700 is designed for easy use in emergency situations, with easy-grip control options, four programmable function keys, a threeway selector and a range of accessories to tailor your experience.

COMPATIBLE BATTERIES & ACCESSORIES

The TP9700 batteries, chargers and audio accessories are compatible with all current TP9000 series portables.

YOUR FREEDOM OF CHOICE

Tait proudly supports and contributes to the DMR open standard ecosystem. Open standards enable multivendor compatibility to give you more freedom of choice and value for money throughout the life of your investment.

SECURE COMMUNICATION

Secure your fleet with encryption options, tools to manage lost or stolen radios, DMR trunking authentication to prevent unauthorized network access and the Tait EnableProtect Advanced System Key to allow only authorized personnel access radio software and configuration.

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TECHNICAL SPECIFICATIONS

TAIT TOUGH

GENERAL		
Conventional Mode	Networks	26
	Channels/zones	1,500 Channels / 100 zones
	Scan groups	300 with up to 50 members each
Trunked Mode	Networks	4
	Talk groups	512 talk group lists
	Zones and work groups	1,000 zones, 1,000 work groups
Bluetooth®	Supported	
Encryption	ARC4, DES, AES Supported (DMR Tier 2 and Tier 3)	
OTAP	Supported (DMR Tier 3, WiFi) – Requires Tait EnableFleet	
Dimensions (with High Capacity battery)	1.77 x 2.56 x 5.71in / 45 x 65 x 145mm (DxWxH excluding knobs and antenna)	
Weight (with High Capacity battery)	13.42oz / 382g (without antenna)	
Supported Languages	English, German, French, Spanish, Portuguese, Czech, Polish, Bulgarian	
Frequency stability	±0.5ppm (-22°F to +140°F/-30°C to +60°C)	
Channel Spacing	6.25/12.5/15/20/25/30kHz [2]	
Frequency increment	2.5/3.125/5/6.25kHz	
Radio Operating temperature	-22°F to +140°F (-30°C to +60°C)	
Vocoder type	AMBE +2™	
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot	
Audio Output	3W	
Signaling options (analog)	MDC1200 encode and decode, Two Tone decode, PL (CTCSS), DPL (DCS), Selcall	
Water and dust protection	IP68 & IP65	
Tait Infrastructure and Terminals are designed as per the following DMR Specifications:	ETSI TR 102 398 V1.4.1, ETSI TS 102 361-1 V2.5.1, ETSI TS 102 361-2 V2.4.1, ETSI TS 102 361-3 V1.3.1, ETSI TS 102 361-4 V1.11.1	

MILITARY STANDARDS 810G[7]					
Applicable MIL-STD	Method	Procedure	Applicable MIL-STD	Method	Procedure
Low pressure	500.5	2	Humidity	507.5	2
High temperature	501.5	1, 2	Salt fog	509.5	1
Low temperature	502.5	1, 2	Sand & Dust	510.5	1, 2
Temperature shock	503.5	1	Immersion	512.5	1
Solar radiation	505.5	1	Vibration	514.6	1
Rain	506.5	1, 3	Shock	516.6	1, 4, 5, 6

BATTERY [3]	
DMR / TDMA Mode Shift Life (5/5/90) with High Capacity battery	17 hours
Analog conventional or MPT Mode Shift Life (5/5/90) with High Capacity battery	13 hours

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

REGULATORY DATA	USA (FCC), Canada (ISED), Europe/UK (CE), Australia/New Zealand (AS/NZ) compliance for all stated bands except 900MHz compliance for FCC and ISED only.

TP9700 MULTIBAND PORTABLES

TECHNICAL SPECIFICATIONS continued

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

RECEIVER	VHF	UHF	700/800MHz	900MHz [6]
(Note – Radio can be configured to operate on any combination of the supported bands)				
Frequency range	136-174MHz	378-520MHz	757-776MHz, 851-870MHz	935-941MHz
Sensitivity (typical)				
Analog (12dB SINAD)	0.22µV (-120dBm)	0.22µV (-120dBm)	0.22µV (-120dBm)	
DMR (1% BER (ETS300-113))	0.25µV (-119dBm)	0.25µV (-119dBm)	0.25µV (-119dBm)	
DMR (5% BER)	0.16µV (-123dBm)	0.2µV (-121dBm)	0.16µV (-123dBm)	
Audio distortion (rated audio)	1.5%	1.5%	1.5%	
FM hum and noise (Analog)				
12.5kHz channel [2]	-50dB	-50dB	-45dB	
25kHz channel [2]	-55dB	-55dB	-50dB	
Intermodulation rejection				
Analog EIA603E	75dB	75dB	70dB	
DMR ETS 300-113	65dB	65dB	65dB	
Adjacent channel rejection				
12.5kHz (P25) TIA-102	60dB	60dB	60dB	60dB
25kHz TIA-603 (2-tone) [2]	73dB	70dB	65dB	65dB

NOTE:

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

QUALIFICATIONS

DMR DIGITAL MOBILE RADIO ASSOCIATION

Quality Management ISO 9001

Environment Management ISO 14001:2015

Occupational Health & Safety Management ISO 45001:2018