TP9300
SPECIFICATIONS

Tait DMR, a smart investment, made to evolve.

TP9360

Achieve more with your radio network. The most flexible devices and networks, with smart voice and data applications.

Built Tait Tough, the flexible TP9300 portables offer conventional and trunked DMR operation as well as full MPT 1327, and analog conventional FM in one device.

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

TP9310

TP9310

TP9355

TP9360

TAIT TOUGH
The Toughest Radios in the Industry

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.taitcommunications.com

TP9300
SPECIFICATIONS

FEATURES AND BENEFITS*

Flexible and Easy to Use

- Clear communication with DMR AMBE+2 enhanced digital vocoder and digital noise suppression software
- Bluetooth® connectivity for wireless voice accessories
- Four programmable function keys and three-way selector
- Tailor your experience with wide range of accessory options
- Channel Authorization for DMR Tier 2 and Tier 3 gives users confidence their call will be heard
- Proceed to Talk Tone available in all modes, for consistent operation

DMR smart voice and data

Benefit from the spectral efficiency, multi-vendor interoperability, security, migration and data capability of DMR open standards

- Text messaging for enhanced and unambiguous communications
- Short data messages for location, status and text
- Packet data over traffic channels for work force management and customer specific applications
- IP data in digital trunked mode
- USBD Fast Polling – capable of 2000 polls per minute on compatible DMR Tier 3 systems

Tait Tough – Designed to perform

- Water-shedding grille maintains transmitted voice clarity and high audio volume in wet environments
- IP65 & IP68 dust and water proof
- Display screen protected by recess*
- Drop test exceeds MIL-STD-810G
- Shock absorbing corner protection
- Supported by a range of Tait Tough audio and carry accessories

DMR specifications

Tait infrastructure and terminals are designed as per the following DMR Specifications:

- ETSI TR 102 398 V1.4.1 General System Design.
- ETSI TS 102 361-1 V2.5.1 DMR Air Interface (AI) protocol.
- ETSI TS 102 361-2 V2.4.1 DMR voice and generic services and facilities
- ETSI TS 102 361-3 V1.3.1 DMR data protocol.
- ETSI TS 102 361-4 V1.11.1 DMR trunking protocol

Extensive network capabilities

- Future proof quad mode portable radio offering Trunked DMR, Conventional DMR, MPT 1327 and analog conventional FM in one device
- Roaming between MPT 1327 and DMR Tier 3 trunked networks
- Roaming between Conventional FM and DMR Tier 2 Conventional networks
- Individual calls for private discussions
- A range of call types for individual and group communication with without the distraction of irrelevant traffic
- Increased channel capacity with up to 1,500 channels
- Scanning modes include: priority, dual priority, zone, and background scan – groups are editable
- PSTN dialling allows a user to make phone calls on DMR systems that support telephone interconnect
- Trunked operation allows for individual and private calls within designated groups
- Pre-set status messages

Personalization options

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

Improve workforce safety

- Programmable emergency key is easily accessible and highly visible
- Man Down and Lone Worker
- Location Services – integrated GNSS option, and iBeacon support for indoor locations
- Tait GeoFencing option for automated location based behavior
- Emergency calls have priority access to trunked networks
- Intrinsically Safe options available (refer to TP9361 specifications)
- Blast Alarms and Audible Alerts in DMR modes

Tait GeoFencing Automation

- Radios can automatically take a range of actions based on location, such as change modes, send messages, hazardous area alert, or activate lone worker features
- Independent of the network, dispatch, or any other software applications

Tait EnableFleet industry leading configuration management system

- Total visibility of your fleet from a secure, central point of control
- Wired connection or Over-the-air-programming (OTAP) to update configuration and software files
- OTAP via DMR trunked networks

Secure communications

- Radio inhibit and uninhibit to allow management of misplaced or stolen radios
- Configurable DMR authentication to protect network access
- Supports end-to-end encryption, including DES, ARC4, or AES
- Tait EnableProtect Advanced System Key ensures only authorized personnel can access radio software and configuration

* Not all features are supported in all models or modes of operation. Contact Tait or an authorized channel partner for more details.
^In-vehicle and 6 way multi-chargers are not available for sale in Brazil.

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GENERAL INFORMATION	TP9310	TP9355/TP9360
Conventional Mode		
Networks	1	26
Channels/zones	48 channels / 3 zones	1,500 channels / 100 zones
Scan groups	16 with up to 50 members each	300 with up to 50 members each
Trunked Mode		
Networks	4	4
Talk groups	16 talk groups	512 talk group lists
Zones and work groups	3 zones, 48 work groups	1,000 zones, 1,000 work groups
Bluetooth	Not supported	Supported (for audio accessories and iBeacon reporting)
Encryption		
ARC4	Supported (DMR Tier 2 and Tier 3)	Supported (DMR Tier 2 and Tier 3)
DES	Not supported	Supported (DMR Tier 2 and Tier 3)
AES	Not supported	Supported (DMR Tier 2 and Tier 3)
OTAP	Supported (DMR Tier 3)	Supported (DMR Tier 3)
Dimensions (DxWxH)		
With Li-Ion Slimline battery	1.61 x 2.56 x 5.35in (41 x 65 x 136mm) excluding knobs	
With Li-Ion Performance / High Capacity battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) excluding knobs	
Weight		
With Li-Ion Slimline battery	11.46oz (325g) – no antenna	
With Li-Ion Performance battery	13.12oz (372g) – no antenna	
With Li-Ion High Capacity battery	13.52oz (385g) – no antenna	
Supported Languages	English (default), German, French, Spanish, Portuguese, Czech, Russian, Polish	
Water and dust protection	IP68 & IP65	
Channel Spacing [1]	6.25/12.5/15/20/25/30kHz	
Frequency increment/channel step	2.5/3.125/5/6.25kHz	
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)	
Operating temperature	-22°F to 140°F (-30°C to 60°C)	
ESD rating	+/-4kV contact discharge and +/-8kV air discharge	
Rated audio	0.5W	
Speaker rating	2W	
Air interface standard	DMR: ETSI TS 102 361-1, -2, -3, -4	
General system design standard	ETSI TR 102 398 V1.4.1	
Signaling options (Analog)	MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS). Selcall	
Vocoder type	AMBE +2™	
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot	

TRANSMITTER**	VHF	UHF	700/800MHZ #
Frequency range	136-174MHz (B1) 174-225MHz (C0)	320-380MHz (G1) 378-470MHz (HK) 450-520MHz (H7)	757-870MHz (K5)
Output power (nom)	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
FM hum and noise (Analog)			
12.5kHz channel	-40dB	-40dB	-40dB
25kHz [1]	-45dB	-45dB	-45dB
Conducted/radiated emissions	-36dBm	-36dBm	-36dBm
Audio response	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (Analog)	2.5% @1kHz, 60% Deviation	2.5% @1kHz, 60% Deviation	2.5% @1kHz, 60% Deviation
Modulation limiting [1]	12.5/15kHz channel and 25/30kHz channel		

RECEIVER**	VHF	UHF	700/800MHZ #
Frequency range	136-174MHz (B1) 174-225MHz (C0)	320-380MHz (G1) 378-470MHz (HK) 450-520MHz (H7)	757-776MHz & 850-870MHz (K5) 850-870MHz (K4)
Sensitivity (typical)			
Analog (12dB SINAD)	-120dBm(0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)
DMR (1% BER (ETS300-113))	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)
DMR (5% BER)	-123dBm (0.16µV)	-123dBm (0.16µV)	-123dBm (0.16µV)
Intermodulation rejection			
EIA603E	75dB	75dB	75dB
ETS 300-113	70dB	70dB	70dB

**Contact your local Tait representative for more information.
[1] Wideband operation is not available in the USA in some bands
Supports 700 A-Block frequencies (757-758MHz Tx & Rx, 787-788MHz Tx)

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RECEIVER (CONT.)**	VHF	UHF	700/800MHZ #
FM hum and noise (Analog)	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB
Selectivity (Analog)			
EIA603E (2 Tone)	12.5kHz: 52dB 25kHz: 73dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB 25kHz: 70dB
ETS 300-086	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 60dB 25kHz: 70dB
Audio distortion (rated audio)	2%	2%	2%

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

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

BATTERY[3]	
DMR Mode Shift Life (5/5/90)	
Li-Ion High Capacity	27 hours
Li-Ion Performance	20 hours
Li-Ion Slimline	16 hours
Analog Mode Shift Life (5/5/90)	
Li-Ion High Capacity	21 hours
Li-Ion Performance	15 hours
Li-Ion Slimline	12 hours

REGULATORY DATA	USA (FCC)	CANADA (ISED)	EUROPE (CE)	AUSTRALIA/NEW ZEALAND (AS/NZ)
VHF (136-174MHz)	✔	✔	✔	✔
VHF (174-225MHz)	✔	-	-	✔ [4]
UHF (320-380MHz)	-	-	✔	-
UHF (378-470MHz)	✔	✔	✔	✔ [2]
UHF (450-520MHz)	✔	✔	✔	✔ [2]
700/800MHz	✔	✔	-	-

**Contact your local Tait representative for more information.
[1] Wideband operation is not available in the USA in some bands
[2] The UHF band radios are approved for use in Citizen Band in Australia and New Zealand when programmed to meet the requirements of AS/NZS4365. Tait cannot guarantee full performance to the published specifications when the 378-470MHz radio is operating at the CB frequencies
[3] Battery performance is dependent on frequency, temperature, and operational configuration.
[4] New Zealand only
Supports 700 A-Block frequencies (757-758MHz Tx & Rx, 787-788MHz Tx)

TAIT DMR SOLUTION

Backed up by our proven radio network expertise, the TP9300 is part of our larger DMR offering. The Tait DMR solution consists of terminals, infrastructure, applications, services and integration with third party interfaces to ensure that your organization can reap all the benefits of the spectrally-efficient DMR standard in a mission critical environment.

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

Tait International Limited facilities are certified for ISO 9001:2015 (Quality Management System), ISO 14001:2015 (Environmental Management System) and ISO 45001:2018 (Occupational Health and Safety Management System) for aspects associated with the design, manufacture and distribution of radio communications and control equipment, systems and services. In addition, all our Regional Head Offices are certified to ISO 9001.

Authorized Partners

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Quality Management ISO 9001
Environment Management ISO 14001:2015
Occupational Health & Safety Management ISO 45001:2018

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