

DMR TP9300

A SMART INVESTMENT, MADE TO EVOLVE

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

Improve work force safety with smart features such as Location Services, Tait Geo-Fencing, and Man Down functionality.



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 wider range of accessory options
- Channel Authorization for DMR Tier 2 and Tier 3 gives users confidence their call will be heard

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.
- USB D Fast Polling capable of 2000 polls per minute on compatible DMR Tier 3 systems

DMR SPECIFICATIONS

- Tait infrastructure and terminals are designed as per the following DMR Specifications:
- ETSI TR 102 398 V1.5.1 General System Design.
- ETSI TS 102 361-1 V2.6.1 DMR Air Interface (AI) protocol.
- ETSI TS 102 361-2 V2.5.1 DMR voice and generic services and facilities.
- ETSI TS 102 361-3 V1.3.1 DMR data protocol.
- ETSI TS 102 361-4 V1.12.1 DMR trunking protocol.

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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 range of Tait Tough audio and carry accessories

PERSONALIZATION OPTIONS

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

TAIT GEOFENCING AUTOMATION

- Radio scan automatically take 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

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
- 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 dialing 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

IMPROVE WORK FORCE 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 ENABLE FLEET 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
- Support send-to-end encryption, including DES, ARC4, or AES
- Tait Enable Protect 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.

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GENERAL INFORMATION	TP9310	TP9355/TP9360
CONVENTIONAL MODE		
Network	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
CONVENTIONAL MODE		
Network	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	1.61X 2.56 X 5.35IN (41X 65X 136MM) excluding knobs	
With Li-Ion Performance/ HighCapacity battery	1.77x 2.56 x 5.35in (45x 65x 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	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 102 361-1V2.6.1, -2 V2.5.1, -3 V1.3.1, -4 V1.12.1	
General system design standard	ETSI TR102 398 V1.5.1	
Signaling options (Analog)	MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS). Selcall	
Vocoder type	AMBE +2™	
Packet Data	½Rate, ¾Rate, Full rate, Single Slot	

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TRANSMITTER	VHF	UHF	700/800 MHZ
Frequency range	136-174MHZ (B1) 174-225MHZ (C0)	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 humand noise (Analog)			
12.5kHz channel	-40dB	-40dB	-40dB
25kHz	-45dB	-45dB	-45dB
Conducted/radiated emissions	-36dB	-36dB	-36dB
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	12.5/15kHz channel and 25/30kHz channel		

TRANSMITTER	VHF	UHF	700/800 MHZ
Frequency range	136-174MHZ (B1) 174-225MHZ (C0)	378-470MHZ (HK) 450-520MHZ (H7)	757-776MHZ & 850-870MHZ (K5) 757-776MHZ & 850-870MHZ (K5)
Sensitivity (typical)			
Analog (12dB SINAD)	-120dBm(0.22uV)	-120dBm(0.22uV)	-120dBm(0.22uV)
DMR (1% BER (ETS300-113))	-119dBm(0.25uV)	-119dBm(0.25uV)	-119dBm(0.25uV)
DMR (5%BER)	-123dBm(0.16 uV)	-123dBm(0.16 uV)	-123dBm(0.16 uV)
Intermodulation rejection			
EIA603E	75DB	75DB	75DB
ETS300-113	70DB	70DB	70DB
FM hum and noise (Analog)	12.5KHz: -40DB 25KHz: -45DB	12.5KHz: -40DB 25KHz: -45DB	12.5KHz: -40DB 25KHz: -45DB
Selectivity (Analog)			
EIA603E (2Tone)	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: 60dB 25KHz: 73dB	12.5KHz: 60dB 25KHz: 70dB
Audio distortion (rated audio)	2%	2%	2%

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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

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

BATTERY	USA (FCC)	CANADA (ISED)	EUROPE(CE)	AUSTRALIA/NEWZEALAND(AS/NZ)
VHF (136 -174MHz)	•	•	•	•
VHF (174 -225MHz)	•	—	—	•
UHF (320-380MHz)	—	—	•	—
UHF (378-470MHz)	•	•	•	•
UHF (450-520MHz)	•	•	•	•
700/800MHz	•	•	—	—