

Tough terminals for business critical communications.

Tait DMR is a highly reliable, modern, digital radio solution that is designed to meet business critical needs. Tait DMR offers a digital communications solution based on the DMR standard.

The TP9310 DMR Tier 2 portable is designed for organizations needing an easy to use radio which is tough enough to survive in demanding environments.



KEY FEATURES

- ▶ Dual-mode portable. (DMR Conventional and conventional analog FM)
- ▶ Roaming between FM Conventional and DMR Tier 2 Conventional Networks
- ▶ Open DMR standard provides choice and interoperability
- ▶ Engineered for demanding environments with IP67 rating
- ▶ Audio clarity provided by noise reducing digital technology
- ▶ High quality audio
- ▶ Support for digital encryption
- ▶ Integrated GPS to improve efficiency and safety
- ▶ Available with a range of accessories and battery options
- ▶ Enhanced VHF wideband antenna option
- ▶ Optional colors available. Orange and Hi-Visibility Green



FEATURES AND BENEFITS

Improve workforce safety with the following TP9300 features

- ▶ Integrated GPS (software key option) will ensure that you always know where your workforce is
- ▶ Digital technology improves audio quality and reduces background noise to ensure clear communications
- ▶ High quality voice ensuring the operator and user will understand the message
- ▶ Emergency calls have rapid access to the network.

Improve your organization's efficiency

- ▶ GPS location (software key option) allows efficient allocation of resources to events
- ▶ High capacity batteries for extended shift times
- ▶ End-stopped 16 way channel/talk group selector allows easy channel selection even in the dark.

Privacy feature

- ▶ Optional 56bit DES encryption, or ARC4 when operating in DMR Tier 2 mode, ensures privacy of conversations.

Designed to perform in demanding environments

- ▶ Water shedding grille assists voice clarity and high audio volume is maintained in wet environments

- ▶ IP67 water and dust protection
- ▶ 4 programmable function keys including emergency key
- ▶ Programmable orange emergency key at the base of the antenna for ease of location in the dark
- ▶ 16 way channel/talk group selector
- ▶ Durable controls and selectors
- ▶ Impact protected corners provide shock absorbing protection.

Voice communications delivering on operational needs

- ▶ Dual mode terminal offering, Conventional DMR and analog conventional FM in one device
- ▶ Roaming between Conventional FM and DMR Tier 2 Conventional networks
- ▶ Group calls allow separate teams to communicate amongst themselves without having to listen to irrelevant traffic
- ▶ Channel capacity with support of up to 16 channels
- ▶ Analog capability includes foreground scan, CTCSS and DCS
- ▶ High voice quality
- ▶ Common look and feel with other TP9300 portables
- ▶ Supports Digital Simplex Mode.

Facilities to improve network security

- ▶ Stun and Revive are implemented to temporarily deny a specific portable access to the network.

Complete package with accessories portfolio

- ▶ Audio accessories including speaker-microphones, headsets and ear pieces
- ▶ Choice of chargers, including in-vehicle, single fast chargers, and 6 way multi-chargers
- ▶ Standard and high capacity Li-Ion batteries available
- ▶ Wide selection of carry cases and accessories
- ▶ Choice of antenna types to suit operational needs.

Data services

- ▶ Short data messages for location data
- ▶ CCDI port on the radio can be used for short data and control messages.

Color options

- ▶ Tait 9300 portables are available in black, orange and high visibility green
- ▶ These color options make it easier for workgroups to identify their equipment in the field.

GENERAL

Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
Channels/talk groups	16 selected combinations of channel or talk group
Scan groups	16 with up to 16 members each (each scan group must be associated with a 16 way selector position)
Dimensions (DxWxH)	
With Li-Ion standard battery	11.46oz (325g) – no antenna
With Li-Ion high-capacity battery	13.12oz (372g) – no antenna
Weight	
With Li-Ion standard battery	11.46oz (325g) – no antenna
With Li-Ion high-capacity batter	13.12oz (372g) – no antenna
Channel spacing	6.25/12.5/15/20/25/30kHz
Frequency increment/channel step	2.5/3.125/5/6.25kHz
Operating temperature	-22°F to 140°F (-30°C to 60°C)
Water and dust protection	IP67
ESD rating	+/-4kV contact discharge and +/-8kV air discharge
Rated audio	0.5W
Speaker rating	2W
Air interface standard	DMR: ETSI TS 102 361
Signalling options (Analog)	PL (CTCSS), DPL (DCS)
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

TRANSMITTER

	VHF	UHF	800MHz	900MHz
Transmit frequency range	136-174MHz	400-470MHz 450-520MHz	806-870MHz	896 - 941MHz
Output power	5W, 3W, 2W, 1W	4W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W	3W, 2.5W, 2W, 1W
FM hum and noise (Analog)				
25kHz1	-45dB	-45dB	-45dB	NA
12.5kHz channel	-40dB	-40dB	-40dB	-40dB
Conducted/radiated emissions	-36dBm	-36dBm	-36dBm	-36dBm
Audio response	+1/-3dB	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (Analog)	2.5%@1kHz, 60% deviation	2.5%@1kHz, 60% deviation	2.5%@1kHz, 60% deviation	2.5%@1kHz, 60% deviation

RECEIVER

	VHF	UHF	800MHz	900MHz
Transmit frequency range	136-174MHz	400-470MHz (H5 models) 450-520MHz (H7 models)	851-870MHz	935 - 941MHz
Sensitivity (analog) 12dB SINAD	-120dBm (0.22 μ V)	-120dBm (0.22 μ V)	-120dBm (0.22 μ V)	-120dBm (0.22 μ V)
Sensitivity (PDMR) 5% BER	-119dBm (0.25 μ V)	-119dBm (0.25 μ V)	-119dBm (0.25 μ V)	-119dBm (0.25 μ V)
Intermodulation rejection				
EIA603D	75dB	75dB	75dB	75dB
ETS 300-113	70dB	70dB	70dB	70dB
FM hum and noise (Analog)	12.5kHz: -40dB 25kHz: -45db	12.5kHz: -40dB 25kHz: -45db	12.5kHz: -40dB 25kHz: -45db	12.5kHz: -40dB NA
Selectivity (Analog)				
EIA603D (2 Tone)	12.5kHz: 52dB 25kHz: 73dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB NA

TP9310

SPECIFICATIONS



Selectivity ETS 300-086	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 60dB 25kHz: 70dB	12.5kHz: 60dB NA
Optional external speaker output	0.5W (into 16ohm balanced speaker)			
Audio distortion (rated audio)	2%	2%	2%	2%

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

Applicable MIL-STD Method	Method	Procedure	Applicable MIL-STD Method	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	Dust	510.5	1
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	1,5,6

BATTERY

Charger options (Li-Ion)	Fast desktop single charger, 6-way multi chargers, vehicle charger	
Battery	Li-ion premium	Li-ion standard
DMR Mode Shift Life (5/5/90)	15 hours	11.5 hours
Analog Mode Shift Life (5/5/90)	12 hours	9 hours

REGULATORY DATA ³

	USA	Canada	Europe	Australia/New Zealand
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295
UHF (400-470MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295 AS/NZS4365 ²
UHF (450-520MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	AS/NZS4295 AS/NZS4365
700/800MHz	CFR 47	RSS-119	NA vv	NA
900MHz	CFR 47	NA	NA	NA
Emissions Designators	11K0F3E, 16K0F3E1, 6K60F2D, 7K80F2D, 9K60F2D1, 10K8F2D1, 7K60FXW, 7K60FXD,			

1 Wideband operation is not available in the USA.

2 The UHF band radios are approved for use in Citizen Band in Australia and New Zealand when programed to meet the requirements of AS/NZS4365. Tait cannot guarantee full performance to the published specifications when the 400-470MHz radio is operating at the CB frequencies.

3 The Australia/New Zealand approvals are available, For other jurisdictions please contact your local Tait representative.

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.

Specifications are subject to change without notice and shall not form part of any contract. They are issued for guidance purposes only. All specifications shown are typical.

* Not all features are supported in all modes of operation. Feature comparison tables are available in the full product catalog

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Tait Limited facilities are certified for ISO9001:2008 (Quality Management System), ISO14001:2004 (Environmental Management System) and ISO18001:2007 (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 ISO9001:2008

