TP**9300**

SPECIFICATIONS

tait
communications

Tough terminals for mission critical communications

Tait DMR is a highly reliable, modern, digital radio solution that is designed for mission critical environments. Tait DMR offers a digital communications solution based on the DMR standard.

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

All standard TP9300 portables have GPS, Man Down and Bluetooth® functionality and are IP68 dust/waterproof rated.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

FEATURES AND BENEFITS*

Improve workforce safety with the following TP9300 features

- Man Down and Lone Worker are standard

- Integrated GPS enables you to locate your workforce

- Wireless audio accessories utilizing Bluetooth technology

- Crystal-clear communications enabling all personnel to understand each other

- Programmable orange emergency key at base of antenna for ease of location in dark or restrictive environments

- Emergency calls have priority access to trunked networks

- Intrinsically Safe options available (refer to TP9361 specifications)

Improve your organizations' efficiency

- GPS location allows efficient allocation of resources to events

- Text messaging for enhanced and unambiguous communications

- Pre-defined status messages for fast notification and response in common situations

- Over-the-air-programming (OTAP) with the industry-leading EnableFleet configuration management system delivers software and firmware changes over the Tait DMR Tier 3 radio network, making it faster, easier and more affordable to update and optimize the performance of the radios in your fleet

Designed to perform

- Water-shedding grill maintains transmitted voice clarity and high audio volume in wet environments

- IP68 dust-proof and immersible

- IP65 water jet protection

- Display screen protected by recess

- Shock absorbing impact protected corners

User Interface

- 4 programmable function keys including emergency key

- Keypad and display options with common menu structure

- Optional continuous rotation channel control knob

- Optional zone selector switch to provide easy access to more programmable features

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

Voice Communications Delivery on Operational Needs

- Quad mode terminal 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 provide privacy between individuals

- Group calls allow separate teams to communicate amongst themselves without having to listen to irrelevant traffic

- Analog capability includes Priority and Dual Priority, Editable, Zone and Background Scan

- PSTN dialling allows a user to make phone calls on DMR systems that support telephone interconnect

Privacy features

- Trunked operation allows for individual and private calls within designated groups

- Optional 56 bit DES encryption, or ARC4 encryption

Facilities to improve network security

- DMR trunked networks authenticate all terminals before they are given access

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

- EnableProtect Advanced System Key option for programming security

Complete package with accessories portfolio

- Audio accessories including speaker- microphones, headsets and earpieces

- 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

Data Services

- Embedded data for location

- Short data messages for location, status and text

- Packet data over traffic channels for work force management and customer specific applications

* Not all features are supported in all models or modes of operation. Contact Tait or an authorized channel partner for more details.

TP**9300**
SPECIFICATIONS

GENERAL		
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)	
	TP9310	**TP9355/TP9360**
Conventional Mode		
Networks	1	26
Channels/zones	16 channels / 1 zone	1,500 channels / 26 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	1 zone, 16 work groups	1,000 zones, 1,000 work groups
Dimensions (DxWxH)		
With Li-Ion standard battery	1.61 x 2.56 x 5.35in (41 x 65 x 136mm) excluding knobs	
With Li-Ion high-capacity battery	1.77 x 2.56 x 5.35in (45 x 65 x 136mm) excluding knobs	
Weight		
With Li-Ion standard battery	11.46oz (325g) – no antenna	
With Li-Ion high-capacity battery	13.12oz (372g) – no antenna	
Options	Black keypad, 3-way zone selector, continuous rotation channel selector	
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	IP68 & IP65	
ESD rating	+/-4kV contact discharge and +/-8kV air discharge	
Rated audio	0.5W	
Speaker rating	2W	
Air interface standard	DMR: ETSI TS 102 361	
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 #	900MHZ
Frequency range	136-174MHz 174-225MHz □	320-380MHz 400-470MHz 450-520MHz	757-870MHz	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)				
12.5kHz channel	-40dB	-40dB	-40dB	-40dB
25kHz [1]	-45dB	-45dB	-45dB	NA
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
Modulation limiting	12.5/15kHz channel and 25/30kHz channel			

RECEIVER**	VHF	UHF	700/800MHZ #	900MHZ
Frequency range	136-174MHz 174-225MHz □	320-380MHz 400-470MHz 450-520MHz	757-776MHz 850-870MHz	935 – 941MHz
Sensitivity (analog) 12dB SINAD	-120dBm(0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)
Sensitivity (PDMR) 5% BER	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)
Intermodulation rejection				
EIA603D	75dB	75dB	75dB	75dB
ETS 300-113	70dB	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)
□ Available September 2017

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RECEIVER (CONT.)**	VHF	UHF	700/800MHZ #	900MHZ
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
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)	0.5W (into 16ohm balanced speaker)	0.5W (into 16ohm balanced speaker)	0.5W (into 16ohm balanced speaker)
Audio distortion (rated audio)	2%	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

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[2]

REGULATORY DATA[2]	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 (320-380MHz)	NA	NA	EN300-086, EN300-113, EN300-219 EN301-489, EN60950	NA
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[2]
700/800MHz	CFR 47	RSS-119	NA	NA
900MHz	CFR 47	RSS-119	NA	NA
Emission Designators**	11K0F3E, 16K0F3E[1], 6K60F2D, 7K80F2D, 9K60F2D[1], 10K8F2D[1], 7K60FXW, 7K60FXD,			

**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.
Supports 700 A-Block frequencies (757-758MHz Tx & Rx, 787-788MHz Tx)
Tait cannot guarantee full performance to the published specifications when the 400-470MHz radio is operating at the CB frequencies

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.taitradio.com.

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Tait Limited facilities are certified for ISO 9001:2008 (Quality Management System), ISO 14001:2004 (Environmental Management System) and BS OHSAS 18001:2007 (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 ISO 9001:2008.

Authorized Partners

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Quality
ISO 9001

Telarc. Registered
Environment
ISO 14001

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Health & Safety
OHSAS 18001

Bluetooth®

DMR

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