TM9300
SPECIFICATIONS

Reliable and smart mobiles for mission critical communications.

Designed for mission-critical environments, Tait DMR offers a secure and reliable digital communications solution based on the DMR standard.

The TM9300 mobiles offer conventional and trunked DMR operation as well as full MPT 1327, and conventional FM functionality in one device.

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FEATURES AND BENEFITS*

TM9300 features to improve workforce safety

- Lone Worker as standard
- Crystal-clear voice so the operator and user will understand the message
- Emergency calls have priority access to the network, and can be integrated with a GPS location solution

Improve your organization's efficiency

- 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

Privacy features

- Trunked operation allows for individual and private calls within designated groups
- Optional 56 bit DES encryption ensures privacy of conversations

Facilities to improve network security

- When operating in DMR mode all terminals must be authenticated on the network before they are given access
- Stun and Revive are implemented to temporarily deny a specific portable access to the network

Designed to perform in demanding environments

- Graphical control head, capable of local or remote operation. The remote configuration can also support a single or dual head.
- Easy to install Hand Held Control Head option, either local or remote operation
- Engineered for use in demanding environments with tough die-cast metal chassis with IP54 rated casing, giving protection against dust and splashing water

Voice communications delivering 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
- Open DMR standard provides choice and interoperability
- Individual calls provide privacy between individuals
- Group calls allow separate teams to communicate amongst themselves without having to listen to irrelevant traffic
- Increased channel capacity with support of up to 1,500 channels
- 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
- Crystal-clear voice quality
- Shared menu structure between all 9300 terminals

Complete package with accessories portfolio

- Audio accessories are available including microphones, speakers and a remote kit for hands-free operation in the car
- Variety of power supply units are available for your region and your specific application
- Vehicle installation kits for different mounting options
- Programming and service kits for ease of configuration and set up

Data Services

- Embedded data for location
- Short data messages for location, status and text
- GPS capable to improve efficiency and safety
- Packet data over traffic channels for work force management, Telemetry, SCADA and customer specific applications

Color Options

- TM9300 mobile Hand Held Control heads are available in black, yellow, green and red.
- These color options make it easier for workgroups to identify their equipment in the field.

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

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GENERAL	
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
	TM9355
Conventional Mode	
Networks	26
Channels/zones	1,500 channels / 26 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
Dimensions	
Body - in (mm)	Height 25W: 2.1 (52), 30W/35W/50W: 2.1 (52) Width 25W: 6.3 (160), 30W/35W/50W: 6.3 (160) Depth 25W: 6.9 (175), 30W/35W/50W: 7.7 (195)
Graphical control head - in (mm)	Height: 2.8 (71), Width: 7.24 (184), Depth: 1.38 (35)
Weight - lb (kg)	
Body	25W: 2.6 (1.2), 30W/35W/50W: 3.1 (1.4)
Control head	0.73 (0.33)
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	IP54
ESD rating	+/-4kV contact discharge and +/-8kV air discharge
Rated audio	3W (internal speaker)
Power supply	DC: 10.8-16VDC, AC: Desk top PSU - 100 to 130V or 200 to 250V
Digital Protocol	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	1/2 Rate, 3/4 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				
25W Models	25W, 10W, 5W, 1W	25W, 10W, 5W, 1W	NA	NA
High Power models	50W, 25W, 15W, 10W	40W, 20W, 15W, 10W	35/30W, 25W, 10W, 2W	30W, 15W, 5W, 2W
Input current				
Standyby Current	0.1A	0.1A	0.1A	0.1A
25W Models	5.5A	5.5A	NA	NA
High Power models	10.5A	9A	7A	6.5A
FM Hum and noise (Analog)				
12.5kHz	-40dB	-40dB	-40dB	-40dB
25kHz [1]	-45dB	-45dB	-45dB	
Adjacent channel power - static (Analog)				
@ 12.5kHz offset	-60dB	-60dB	-60dB	-60dB
@ 25kHz offset [1]	-70dB	-70dB	-70dB	
Adjacent channel power - static (DMR)				
ETS 300-113	12.5kHz: 60dB	12.5kHz: 60dB	12.5kHz: 60dB	12.5kHz: 60dB
Conducted/radiated emissions	25W: -36dBm 50W: -20dBm	25W: -36dBm 40W: -20dBm	30/35W: -20dBm	30W: -20dBm
Audio response (Analog)	+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
Duty cycle	25W: 2min Tx, 4min Rx for 8 hrs @ 140°F (+60°C), 5W: continuous @ 104°F (+40°C) 30/35/40/50W: 1min Tx, 4min Rx for 8 hrs @ 140°F (+60°C)			

[1] Wideband operation is not available in the USA in some bands.
**Contact your local Tait representative for more information.
Supports 700 A-Block frequencies (757-758MHz Tx & Rx; 787-788MHz Tx)
¤ 25W model only.
▪ 25W model only.

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RECEIVER**	VHF	UHF	700/800MHZ #	900MHZ
Frequency range	136-174MHz 174-225MHz	320-380MHz 400-470MHz 450-520MHz	757-776MHz 850-870MHz	896-941MHz
Sensitivity (Analog) 12dB SINAD	-120dBm (0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)	-120dBm (0.22µV)
Sensitivity (DMR) 5% BER	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)	-119dBm (0.25µV)
Intermodulation rejection				
EIA603D	76dB	70dB	75dB	75dB
ETS 300-113	70dB	70dB	70dB	70dB
Spurious response rejection				
EIA603D	80dB	75dB	70dB	80dB
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
Conducted spurious emissions	-57dBm	-57dBm	-57dB	-57dB
Selectivity (Analog)				
EIA603D (2 Tone)	12.5kHz: 52dB 25kHz: 73dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB 25kHz: 70dB	12.5kHz: 50dB
ETS 300-086	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 60dB 25kHz: 70dB	12.5kHz: 60dB 25kHz: 70dB	12.5kHz: 60dB
Optional external speaker output	10W (into 4ohms)	10W (into 4ohms)	10W (into 4ohms)	10W (into 4ohms)
Audio distortion (rated audio)	2%	2%	2%	2%

MILITARY STANDARDS 810C, 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	Sand & Dust	510.5	1, 2
Temperature shock	503.5	1	Vibration	514.5	1
Solar radiation	505.5	1	Shock	516.5	1,5,6
Rain	506.5	1,3			

REGULATORY DATA	USA	CANADA	EUROPE [3]	AUSTRALIA/NEW ZEALAND [3]
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219, EN301-489, EN60950	AS/NZS4295
VHF (174-225MHz)	NA	NA	EN300-113, EN301-489, EN60950	NA
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	NA	AS/NZS4295 AS/NZS4365[2]
700/800MHz	CFR 47	RSS-119	NA	NA
900MHz	CFR 47	RSS-119	NA	NA
Emissions Designators**	11K0F3E, 16K0F3E[1] , 6K60F2D, 7K80F2D, 9K60F2D[1], 10K8F2D[1], 7K60FXW, 7K60FXD			

[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 400-470MHz band radios is operating at the CB frequencies.
[3] 25 Watt models only.
**Contact your local Tait representative for more information.
Supports 700 A-Block frequencies (757-758MHz Tx & Rx; 787-788MHz Tx)

TAIT DMR SOLUTION

Backed by our proven radio network expertise, the TM9300 mobile 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.

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

Telarc. Registered — Quality ISO 9001
Telarc. Registered — Environment ISO 14001
Telarc. Registered — Health & Safety OHSAS 18001

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