TM9355
SPECIFICATIONS

Tait DMR: a smart investment, made to evolve.

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

The flexible TM9355 mobiles offer conventional and trunked DMR operation as well as full MPT1327 and analog conventional FM in one device.

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

Supercharge the performance of your TM9300 with a range of options including Bluetooth, WiFi OTAP and voice recording through to full LTE broadband and edge computing capabilities. [1]

A range of control head options are available for TM9300 mobiles. [2]

TCH6: High Resolution Color Display, Built-in Keypad, Remote Mount

15W Rugged External Speaker

TCH4: High Resolution Color Display, Built-in 4W Speaker, Remote Mount

TCH3: High Resolution Color Display, Built-in 4W Speaker, Local Mount

Large Control Head and Hand Held Control Head options including red, yellow and green casing options

Improve workforce safety

- Lone Worker as standard
- Tait GeoFencing option for Automated Location Controlled Behavior
- 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 GNSS location solution
- 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, activate lone worker features, or activate radio I/Os to turn lights on
- Independent of the network, dispatch, or any other software applications

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 Tait EnableFleet configuration management system delivers software and firmware changes over the Tait DMR Tier 3 radio network or WiFi (when optional TU2000M3 is fitted), making it faster, easier and more affordable to update and optimize the performance of radios in your fleet

Privacy features

- Individual calls provide privacy
- Optional DES or AES encryption for privacy of conversations

Facilities to improve network security

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

Highly flexible and designed for demanding environments

- Rugged design exceeds MIL-STD-810G tests for humidity, salt fog, vibration, shock and solar radiation and is IP54 rated for protection against dust and splashing water
- Control head options include high definition color screen and Hand Held Control Head
- Remote mount options 19ft and 40ft (6m and 12m) options
- Dual head options
- Refer to Control Head Options brochure for more information

High-performance voice communications capabilities

- Open DMR standard provides choice and interoperability
- Quad mode mobile offering Trunked DMR, Conventional DMR, MPT1327 and analog conventional FM in one device
- Roam between DMR Tier 3 and MPT1327 trunked networks
- Roam between conventional FM analog and DMR Tier 2 conventional networks
- 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
- Scanning modes include: priority, dual priority, zone, and background scan – groups are editable
- Group calls allow separate teams to communicate amongst themselves without being distracted by others
- PSTN dialling allows a user to make phone calls on DMR systems that support telephone interconnect
- Increased channel capacity with support of up to 4,000 channels
- Last over repeat capability to hear missed calls when TU2000M3 option board is fitted
- Bluetooth Audio available when TU2000M3 option board is fitted

Data Services

- Embedded data for location
- Short data messages for location, status and text
- Internal and external GNSS options available to improve efficiency and safety (please refer to Tait Mobile Options and Accessories catalog)
- Packet data over traffic channels for workforce management, Telemetry, SCADA and customer specific applications
- CCDI connectivity to the mobile for short data and control messages in conventional mode
- RAP connectivity to the mobile for short data and control messages in trunked mode
- IP data in digital trunked mode
- USBD Fast Polling – capable of 2000 polls per minute on compatible DMR Tier 3 systems

TM9300 Options and Accessories

- Enable any combination of Bluetooth audio, WiFi OTAP, Last Over Repeat and On Board Voice Recording capabilities with the TU2000M3 Option Board
- Options board space for Tait-developed or third-party options boards
- Digital and analog interfaces allow a range of accessory options for the TM9300
- A range of audio accessories are available including microphones, speakers and installation options
- Variety of vehicle installation kits for different mounting options
- Refer to Tait Mobile Options and Accessories catalog for more information

Color Options

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

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GENERAL	
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
Conventional Mode	
Networks	26
Channels/zones	4,000 channels / 100 zones
Scan groups	300 with up to 50 members each
WLAN (WiFi) Option	2.4GHz 802.11b/g/n 20MHz, 5GHz 802.11a/n 20/40MHz [1]
Bluetooth® Option	Supported [1]
Trunked Mode	
Networks	4
Talk groups	512 talk group lists
Zones and work groups	1,000 zones, 1,000 work groups
Dimensions (DxWxH)	
Control head (TCH4/TCH6)	2.8 x 7.0 x 2.0in (72 x 178 x 52mm)
Radio body - 25W	6.9 x 6.3 x 2.1in (175 x 160 x 52mm)
Radio body - 30/35/50W	7.7 x 6.3 x 2.1in (195 x 160 x 52mm)
Weight	
Control head (TCH4/TCH6)	0.62lb (0.28kg)
Radio body - 25W	2.6lb (1.2kg)
Radio body - 30/35/50W	3.1lb (1.4kg)
Supported Languages	English (default), German, French, Spanish, Portuguese, Czech, Polish, Bulgarian
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 (-30ºC to 60°C)
Water and dust protection	IP54
ESD rating	+/-4kV contact discharge and +/-8kV air discharge
Rated audio	3W internal speaker or 15W external speaker
Power supply	DC: 10.8-16VDC
Digital Protocol	DMR: ETSI TS 102 361-1 V2.6.1, -2 V2.5.1, -3 V1.3.1, -4 V1.12.1
General System Design standard	ETSI TR 102 398 V1.5.1
Signaling options (Analog)	MDC1200 encode and decode, Two tone decode, PL (CTCSS), DPL (DCS), Selcall
Vocoder type	AMBE +2™
Packet Data	1/2 Rate, 3/4 Rate, Full rate, Single Slot

TRANSMITTER	VHF	UHF	700/800MHZ [#]
Frequency range	136-174MHz (B1) 174-225MHz (C0)[¤]	378-470MHz (HK) [+] 400-470MHz (H5)[¤] 450-520MHz (H7)	757-870MHz (K5)
Output power			
25W Models	25W, 10W, 5W, 1W	25W, 10W, 5W, 1W	NA
High Power models	50W, 25W, 15W, 10W	40W, 20W, 15W, 10W	35/30W, 25W, 10W, 2W
Input current			
Standby Current	0.1A	0.1A	0.1A
25W Models	5.5A	5.5A	NA
High Power models	10.5A	9A (7A)^	7A
FM Hum and noise (Analog)			
12.5kHz	-40dB	-40dB	-40dB
25kHz [3]	-45dB	-45dB	-45dB
Adjacent channel power - static (Analog)			
@ 12.5kHz offset	-60dB	-60dB	-60dB
@ 25kHz offset [3]	-70dB	-70dB	-70dB
Adjacent channel power - static (DMR)			
ETS 300-113	12.5kHz: 60dB	12.5kHz: 60dB	12.5kHz: 60dB
Conducted/radiated emissions	25W: -36dBm 50W: -20dBm	25W: -36dBm 40W: -20dBm	30/35W: -20dBm
Audio response (Analog)	+1/-3dB	+1/-3dB	+1/-3dB
Audio distortion (Analog)	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)		

[#] Supports 700 A-Block frequencies (757-758MHz Tx & Rx; 787-788MHz Tx)
[¤] 25W model only.
[+] 40W model only.
^ 40W HK model only.

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RECEIVER	VHF	UHF	700/800MHZ #
Frequency range	136-174MHz (B1) 174-225MHz (C0)	378-470MHz (HK) 400-470MHz (H5) 450-520MHz (H7)	757-776MHz & 850-870MHz (K5)
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	76dB	75dB	75dB
ETS 300-113	70dB	70dB	70dB
Spurious response rejection			
EIA603E	80dB	75dB	70dB
ETS 300-113	70dB	70dB	70dB
FM hum and noise (Analog)	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB
Conducted spurious emissions	-57dBm	-57dBm	-57dBm
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: 60dB 25kHz: 70dB	12.5kHz: 60dB 25kHz: 70dB
Optional external speaker output	15W	15W	15W
Audio distortion (rated audio)	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	514.6	1
Solar radiation	505.5	1	Shock	516.6	1,5,6
Rain	506.5	1,3			

REGULATORY DATA	USA (FCC)	CANADA (ISED)	EUROPE /UK(CE) [4] E-MARK		AUSTRALIA/NEW ZEALAND (AS/NZ) [4]
VHF (136-174MHz)	✔	✔	✔	✔	✔
VHF (174-225MHz)	✔	-	✔	-	-
UHF (378-470MHz & 400-470MHz)	✔	✔	✔	✔ [5]	✔ [6]
UHF (450-520MHz)	✔	✔	✔	-	✔ [6]
700/800MHz	✔	✔	-	-	-

Please note: Not all features are supported in all models or modes of operation - Contact your local Tait representative for more information.

Supports 700 A-Block frequencies (757-758MHz Tx & Rx; 787-788MHz Tx)

[1] Requires TU2000 option board to be fitted - please refer to TAIT AXIOM Mobile documentation for more information.

[2] Please refer to the Mobile Control Heads brochure for more information.

[3] Wideband operation is not available in the USA in some bands.

[4] 25 Watt models only.

[5] 400-470MHz band only.

[6] The 25W 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 and 400-470MHz band radios is operating at the CB frequencies.

TAIT DMR SOLUTION

Backed by our proven radio network expertise, the TM9355 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.taitcommunications.com.

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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

Quality Management ISO 9001

Environment Management ISO 14001:2015

Occupational Health & Safety Management ISO 45001:2018

DMR