

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.



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.

TM9300

SPECIFICATIONS

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 | | | | |
| Standby 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) | | |

¹Wideband 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.

TM9300

SPECIFICATIONS



| 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 |
| 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 ¹ , 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.

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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.

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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.

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