Improved efficiency and enhanced connectivity

Building on the strengths of our analog and MPT 1327 mobile products we have engineered the Tait DMR mobiles with your organizational requirements in mind. Designed for mission critical environments, Tait DMR offers a modern and reliable digital communications solution based on the DMR Tier 3 trunking standard.

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

KEY FEATURES

- Future proof multi-mode mobiles (DMR, MPT 1327 and conventional FM)
- Full adherence to DMR standards providing choice and interoperability
- Engineered for use in demanding environments with IP54 ratings
- Crystal-clear audio quality
- A range of models and accessories are available and the TM9300 mobiles are configurable to suit your various applications
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
- Status messaging activated with one touch of a button for quick and easy notifications
- Support for in vehicle repeaters to ensure portable coverage when working a long distance from your vehicle

**Improve you organizations efficiency:**
- Text messaging for enhanced and unambiguous communications
- Pre-defined status messages for a fast response in common situations

**Privacy feature:**
- Trunked operation allows for individual and private calls within designated groups

**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 mobile 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.
- Tough die-cast metal chassis with IP54 rated casing, giving protection against dust and splashing water

**Voice communications delivering on operational needs:**
- Trunked DMR, MPT 1327 and analog conventional FM
- Roaming between MPT 1327 and DMR
- 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 2,000 channels
- Analog capability includes Priority and Dual Priority, Editable, Zone and Background Scan
- PSTN dialing allows a user to make phone calls on DMR systems that support telephone interconnect
- Crystal-clear voice quality
- Shared menu structure between 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
## TRANSMITTER

**VHF**

**Output power**
- 25W: 25W, 12.5W, 5W, 1W
- 50W: 50W, 25W, 10W

**Tx current consumption**
- 25W: <5.5A
- 50W <10.5A

**FM hum and noise (Analog)**
- 12.5kHz: -34dB, 20kHz: -36dB, 25kHz: -40dB

**Adjacent channel power**
- EIA 603D & EIA 600-086
  - 12.5kHz: 60dB, 20kHz: 70dB, 25kHz: 70dB
- ETS 300-113
  - 25W: 50dB
  - 50W: 46dB

**Intermodulation rejection (Analog)**
- ETS 300-086
  - 12.5kHz: 76dB
  - 20kHz: 68dB
  - 25kHz: 68dB

**Spurious response rejection (Analog)**
- ETS 300-086
  - 12.5kHz: 85dB
  - 20kHz: 46dB
  - 25kHz: 46dB

**Selectivity (Analog)**
- EIA 603D
  - 12.5kHz: 52dB, 20kHz: 75dB, 25kHz: 75dB
- ETS 300-086
  - 12.5kHz: 62dB, 20kHz: 70dB, 25kHz: 72dB

**Conducted emissions (Analog)**
- ETS 300-086 & EIA 600-086
  - 25W: -36dB
  - 50W: -13dB

**Conducted emissions (DMR)**
- ETS 300-113
  - 25W: -36dB
  - 50W: -13dB

**Radiated emissions (Analog)**
- ETS 300-113, FCC
  - 25W: -36dB
  - 50W: -13dB

**Audio response (Analog)**
- 12.5/15kHz
  - 25/30kHz
  - 300–2,550Hz: +1/-3dB
  - 300–3,000Hz: +1/-3dB

**Audio distortion (Analog)**
- <1.5% @ 1kHz, 60% deviation

**Spurious emissions into VSWR**
- Emissions <20dBm @ VSWR <3:1, -22°F to 140°F (-30°C to +60°C), Supply voltage ± 10%

## RECEIVER

**VHF**

**Sensitivity - static (Analog) EIA-603D**
- -119dBm

**Sensitivity - static (Analog) ETS300-086**
- -114dBm

**Sensitivity - static (DMR) ETS300-113**
- -119dBm

**Intermodulation rejection (Analog) EIA 603D**
- 76dB

**Intermodulation rejection (Analog) ETS300-086**
- 68dB

**Intermodulation rejection (DMR) ETS300-113**
- 68dB

**Spurious response rejection (Analog) EIA 603D**
- 85dB

**Spurious response rejection (DMR) ETS300-113**
- 70dB

**FM hum and noise (Analog)**
- 12.5kHz: 40dB, 20kHz: 44dB, 25kHz: 46dB

**Radiated spurious emissions EIA 603D**
- 100–500μV/m (freq dependant)

**Radiated spurious emissions ETS300-086**
- <57dBm

**Conducted spurious emissions**
- <57dBm

**Selectivity (Analog) EIA 603D**
- 12.5kHz: 52dB, 20kHz: 75dB, 25kHz: 75dB

**Selectivity (Analog) ETS300-086**
- 12.5kHz: 62dB, 20kHz: 70dB, 25kHz: 72dB

**Selectivity (DMR) ETS300-113**
- >60dB

**Residual audio noise ratio (TIA/EIA 102)**
- 45dB

**Optional external speaker output**
- 10W (into 4ohms)

**Blocking (Analog) EIA 603D**
- >90dB

**Blocking (Analog) ETS300-086**
- >84dB
## SPECIFICATIONS

### TM9300

#### GENERAL

<table>
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<th>Frequency Ranges</th>
<th>Frequency Band †</th>
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<tr>
<td>VHF</td>
<td>136–174MHz</td>
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</table>

- **Frequency stability**: ±0.5ppm (22ºF to 140ºF/-30ºC to 60ºC)
- **Channels/zones**: 1,000 - 2,000 channels/50-100 zones
- **Talk groups**: 26 talk group lists comprised of up to 1,000 - 2,000 members each
- **Scan groups**: 300 with up to 50 members each, maximum of 2,000 members total

#### Dimensions

- **Body** - in (mm)
  - Height 25W: 2.1 (52), 50W: 2.1 (52)
  - Width 25W: 6.3 (160), 50W: 6.3 (160)
  - Depth 25W: 6.9 (175), 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: 2.6 (1.20), 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**: 2.5/3.125/5/6.25Hz

#### Operating temperature

- -22ºF to 140ºF (-30ºC to 60ºC)

#### Sealing

- 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 - 120V or 230V

- **Air interface standard**
  - DMR: ETSI TS 102 361

#### Signaling options (Analog)

- MDC1200, encode and decode, Two tone decode, PL (CTCSS), DPL (DCS), Selcall

### MILITARY STANDARDS 810C, D, E, F and G

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<thead>
<tr>
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<th>Method</th>
<th>Procedure</th>
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<tr>
<td>High temperature</td>
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<td>1, 2</td>
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<tr>
<td>Low temperature</td>
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<td>Temperature shock</td>
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<td>Solar radiation</td>
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### TAIT DMR SOLUTION

Backed up 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.