

# Reliable and smart mobiles for business critical communications.

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

The TM9315 mobile offers MPT, trunked DMR, conventional DMR and Analog FM operation. Its rugged design delivers straight forward voice communications in demanding environments.



## KEY FEATURES

- Future proof multi-mode mobile (DMR trunked, DMR conventional, MPT 1327 and conventional analog FM)
- Roaming between MPT and DMR Tier 3 trunked networks
- Roaming between FM Conventional and DMR Tier 2 Networks
- Open DMR standard provides choice and interoperability
- Engineered for use in demanding environments with IP54 rating
- Audio clarity provided by noise reducing digital technology
- High quality audio
- A range of accessories including hands free microphones and GPS antennas
- GPS capable to improve efficiency and safety
- Support for digital encryption

## FEATURES AND BENEFITS\*

### TM9315 features to improve workforce safety

- Digital technology improves audio quality and reduces background noise to ensure clear communications
- High quality voice ensuring the operator and users will understand the message
- Emergency calls have priority access to the network
- GPS capable (software/hardware option) radio ensures that you always know where your workforce is
- Lone Worker

### Improve your organizations' efficiency

- 100 channel/talk-group capacity gives considerable flexibility
- Trunked operation allows for individual and private calls within designated groups
- Up to four trunked networks supported (MPT standard, DMR Tier 3 as a software option)
- Up to 100 call presets per trunked network

### Facilities to improve network security

- Optional 56bit DES encryption ensures privacy of conversations
- Stun and Revive are implemented to temporarily deny a specific mobile access to the network
- When operating in DMR mode all terminals must be authenticated on the network before they are given access

### Designed to perform in demanding environments

- High power external speaker option
- Rugged standard microphone
- 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, Conventional DMR tier 2 conventional FM, MPT 1327 and trunked DMR (software option) in one device
- Roaming between Conventional FM and Conventional DMR networks
- Roaming between MPT 1327 and trunked DMR networks
- Group calls allow separate teams to communicate amongst themselves without having to listen to irrelevant traffic
- Channel capacity with support of up to 100 channels
- Digital simplex mode
- Analog capability, includes foreground scan, CTCSS and DCS
- High quality voice
- Shared programming structure between 9300 terminals

### Complete package with accessories portfolio

- Audio accessories are available including microphones and external speakers
- 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

### Smart features

- Low standby power consumption
- Wide power control 1:25 ratio (25W)
- Duty 33% transmit 2 minute TX 4 minute RX (25W)
- CCDI control over conventional channels
- RAP control for trunked networks
- Control of digital outputs by status messages

### Data Services

- Short data messages for location
- 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

\* Not all features are supported in all modes of operation. Feature comparison tables are available in the full product catalog.

GENERAL	
Frequency stability	±0.5ppm (-22°F to 140°F/-30°C to 60°C)
<b>Conventional Mode</b>	
Networks	1
Channels/zones	100 channels, 1 zone
Scan/vote groups	300
<b>Trunked Mode</b>	
Networks	4
Talk groups	32 talk groups
Zones and work groups	0
Dimensions	
Body - in (mm)	Height 25W: 21 (52), Width 25W: 6.3 (160), Depth 25W: 6.9 (175)
2 digit control head - in (mm)	Height: 2.0(51), Width: 6.9 (175), Depth: 1.38 (35)
Weight - lb (kg)	
Body	25W: 2.6 (1.2),
Control head	0.4 (0.18)
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) 10W (external speaker)
Power supply	DC: 10.8-16VDC, AC: Desk top PSU – 100 to 130V or 200 to 250V
Air interface standard	DMR: ETSI TS 102 361
Signaling options (Analog)	PL (CTCSS), DPL (DCS), Selcall, T99, MDC1200, MPT 1327
Signaling options (Digital)	DMR Tier 2, DMR Tier 3 (option)
Vocoder type	AMBE +2™
Packet Data	½ Rate, ¾ Rate, Full rate, Single Slot

TRANSMITTER	VHF	UHF
Frequency range	136-174MHz	400-470MHz (H5) 450-520MHz (H7)
Output power		
25W Models	25W, 10W, 5W, 1W	25W, 10W, 5W, 1W
Input current (Typical)		
Standby	0.1A	0.1A
25W Models	4.7A	5.4A
FM Hum and noise (Analog)		
12.5kHz	-40dB	-40dB
25kHz <sup>1</sup>	-45dB	-45dB
Adjacent channel power - static (Analog)		
@ 12.5kHz offset	-60dB	-60dB
@ 25kHz offset <sup>1</sup>	-70dB	-70dB
Adjacent channel power - static (Analog)		
ETS 300-113	12.5kHz: 60dB	12.5kHz: 60dB
Conducted/radiated emissions	25W: -36dBm	25W: -36dBm
Audio response	+1/-3dB	+1/-3dB
Audio distortion (Analog)	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)	

<sup>1</sup>Wideband operation is not available in the USA in some bands.

RECEIVER	VHF	UHF
Frequency range	136-174MHz	400-470MHz (H5) 450-520MHz (H7)
Sensitivity (Analog) 12dB SINAD	-120dBm (0.22µV)	-120dBm (0.22µV)
Sensitivity (DMR) 5% BER	-119dBm (0.25µV)	-119dBm (0.25µV)
Intermodulation rejection		
EIA603D	76dB	70dB
ETS 300-113	70dB	70dB
Spurious response rejection		
EIA603D	80dB	75dB
ETS 300-113	70dB	70dB
FM hum and noise (Analog)	12.5kHz: -40dB 25kHz: -45dB	12.5kHz: -40dB 25kHz: -45dB
Conducted spurious emissions	-57dBm	-57dBm
Selectivity (Analog)		
EIA603D (2 Tone)	12.5kHz: 52dB 25kHz: 73dB	12.5kHz: 50dB 25kHz: 70dB
ETS 300-086	12.5kHz: 62dB 25kHz: 73dB	12.5kHz: 60dB 25kHz: 70dB
Optional external speaker output	10W (into 4ohms)	10W (into 4ohms)
Audio distortion (rated audio)	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	AUSTRALIA/NEW ZEALAND
VHF (136-174MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219, EN301-489, EN60950	AS/NZS4295
UHF (400-470MHz)	CFR 47	RSS-119	EN300-086, EN300-113, EN300-219, EN301-489, EN60950	AS/NZS4295 AS/NZS4365 <sup>2</sup>
UHF (450-520MHz)	CFR 47	RSS-119	NA	AS/NZS4295 AS/NZS4365 <sup>2</sup>
Emissions Designators	11K0F3E, 16K0F3E <sup>1</sup> , 6K60F2D, 7K80F2D, 9K60F2D <sup>1</sup> , 10K8F2D <sup>1</sup> , 7K60FXW, 7K60FXD			

<sup>1</sup>Wideband operation is not available in the USA in some bands.

<sup>2</sup> 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.

\*\*The Australia/New Zealand approvals are available, For other jurisdictions please contact your local Tait representative.

### 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](http://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.

