Version 3.1 April 2017

TM9300 Mobile Radios – DMR, Analog

▶ **Mobile Radios**

▶ **Options & Accessories**

Improved efficiency and enhanced connectivity

Building on the strengths of our analog and MPT 1327 mobile products we have engineered 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 and DMR Tier 2 conventional standard.

The TM9300 mobiles offer trunked DMR operation as well as conventional DMR operation, full MPT 1327, and conventional FM functionality in one device. Roaming between DMR and MPT networks is supported.
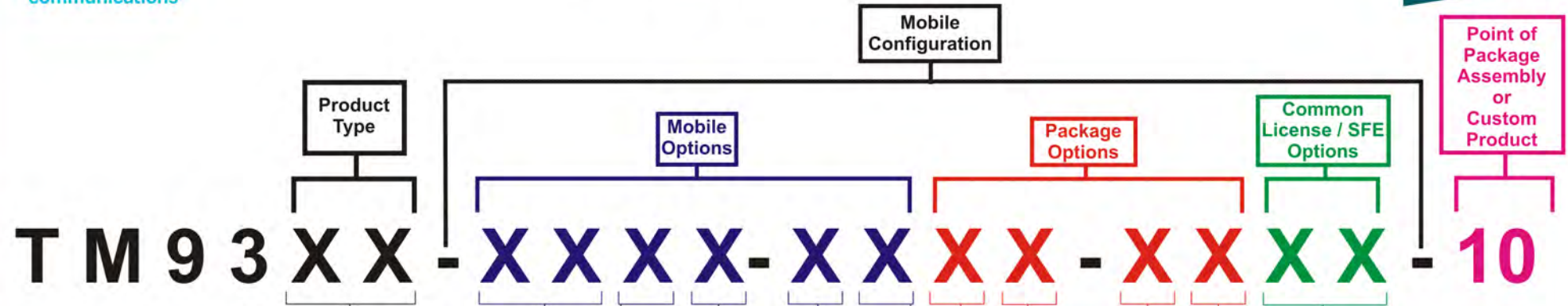
Features:

▸ Future proof multi-mode mobiles (DMR, MPT 1327 and conventional analog FM)

▸ Full adherence to DMR standards providing choice and interoperability

▸ Engineered for demanding environments with IP54 rating

▸ Crystal-clear audio quality

▸ A range of configurable models and accessories are available to suit your various application

Note:

▸ Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

Frequency Code	Frequency Band	TM9355	TM9357	TM9315	TM9395
B1	136–174MHz	✓	✓	✓	✓
C0^	174-225MHz	✓	✓		✓
H5	400-470MHz	✓	✓	✓	✓
H7	450-520MHz	✓	✓	✓	✓
K5	762-870MHz	✓	✓		✓
L3	896-941MHz	✓	✓		✓
Note: ^ - July 2017 release					

TM9300

Product Codes for Commercial Packages

tait communications

Edition: 13

DMR

Mobile Configuration

Product Type

Mobile Options

Package Options

Common License / SFE Options

Point of Package Assembly or Custom Product

T M 9 3 X X - X X X X - X X X X X - X X X X X - 10

Product Type
15 = DMR Capable, Full Functionality - Mobile, Fixed Head, 2 Digit Display

35 = DMR Capable, Restricted Functionality - Mobile, Single Head, Single Body
37 = DMR Capable, Restricted Functionality - Mobile, Dual Head, Single Body
55 = DMR Capable, Full Functionality - Mobile, Single Head, Single Body
57 = DMR Capable, Full Functionality - Mobile, Dual Head, Single Body
90 = DMR Capable, Restricted Functionality - Program Head
95 = DMR Capable, Full Functionality - Program Head

Frequency Band
B1 = 136-174MHz
C0 = 174-225MHz
G1 = 320-380MHz

H5 = 400-470MHz
H7 = 450-520MHz
K5 = 762-870MHz

Options
0 = None
A = External Alarm MOSFET Driver
B = RS-232
C = PA Option board fitted
D = UV Internal WiFi Antenna

Control Head Color
A = Black (2 Digit Display)
B = Yellow
C = Green
D = Red (HHCH Only)

RF Power and Antenna Connection
A = 25 Watts - BNC antenna connection (2 Digit Display)
B = 25 Watts - M-UHF antenna connection
C = 35-50 Watts – BNC antenna connection
D = 35-50 Watts - M-UHF antenna connection

Microphone \ Control Head Options
0 = None
*A = Standard (2 Digit Display)
*B = Keypad
*C = HHCH (24 keys)

D = Dual HHCH (24 Keys)
E = Dual LCHS
F = Dual LCHK
G = Dual LCHS \ LCHK

K = Data Head

*L = Standard with 3M cord
*M = Keypad with 3M cord

Remote Head Options
0 = None (2 Digit Display)

A = 6-Metre SHSB Kit

B = 12-Metre SHSB Kit with CHIB
C = 18-Metre SHSB Kit with CHIB

D = 18-Metre DHSB Kit with CHIB

E = 6-Metre HHCH SHSB Kit
F = 3-Metre HHCH SHSB Kit

Cradle Options
0 = None
U = U-Cradle
E = Security
S = Slide-In (25Watts Only)

External Speaker
0 = None
1 = 1 External Speaker Kit
2 = 2 External Speaker Kits

Breakout Cable Kits
0 = None
A = Telemetry/Horn Breakout Cable
B = Breakout Box and Surveillance
C = Ignition Sense Cable

License / SFE Software Options
00 = Default

AA = TMAS080 - DMR Trunking
AB = TMAS083 – 20/25khz Unrestricted Wideband

BA = TMAS080 & TMAS083
BB = TMAS080 & TMAS095
BH = TMAS083 & TMAS144

(Software Options will be allocated as required)

SHSB = Single Head, Single Body
DHSB = Dual Head, Single Body
CHIB = Control Head Interface Box

2 Digit Display
These are currently the only available options for the Product Type "15" 2 Digit Display

Dual Control Head Radio Info
If Dual Control Head (37 or 57) has been selected from the Product Type options, then you must select an option from Microphone \ Control Head for your Control Head and Microphone configuration. Also the ONLY Remote Head Option is "D" 18-Metre DHSB kit with CHIB.

LCHS = Large Control Head with Standard Microphone
LCHK = Large Control Head with Keypad Microphone

* Unify Vehicle option available but NOT available on TM9315 2 Digit Control Head packages

Product Type
TM9355 = DMR Mobile with Large Control Head   (T02-00071-AAAA) TM9355 Large Control Head LCD

Mobile Configuration
B1 = 136-174MHz,   **Frequency Band**
A = 25 Watts, BNC   RF Power and Antenna Con   (T02-00012-BAAA) TM9355 Mobile Body Conventional 25W 136-174M BNC
0 = None   **Options**
A = Color Black   **Mobile Color**
A = Standard Mic   **Microphone**   (T02-00005-AAAA) Standard Microphone

Package Options
U = U-Cradle   **Cradle**
0 = No Remote Head   Remote Head Kit   (TMAA03-01) U-Cradle Install Kit for 25W Radio BNC
0 = No External Speaker   External Speaker Kit
0 = No Breakout Cable

Common License / SFE Options
00 = No SFE's

Point of Manufacture or Custom Product
10 = TEL Built   Manufacture Point or CustomProduct

Please Note:
Not all products have compliance in all regions/countries. Please check the Tait Product Specifications sheet or contact your Tait Representative for further information.

TM9315 - 25W 2Digit Display

Standard package includes:

▸ TM9315 DMR mobile radio

▸ Standard microphone (No Keypad microphone option)

▸ U-Cradle vehicle installation kit (excluding antenna)

▸ BNC connector

Standard Features:

▸ DMR Tier II Conventional

▸ Analog MPT1327 trunking operation

▸ Analog conventional

▸ 100 MPT Trunked presets

▸ LCD display

▸ Lone Worker operation

▸ Remote stun and revive

▸ 4 programmable function keys (including emergency key)

▸ Internal options space

▸ IP54 certified

▸ MIL-Std 810C, D, E, F and G

Options:

▸ External Speaker

▸ DMR Tier III Trunking (via SFE key)

▸ Roaming between MPT1327 and DMR Tier III (via SFE key)

▸ 100 DMR Tier III presets (via SFE key)

▸ Various mounting options

▸ Wideband Operation (25kHz)[1]

▸ Enhanced Location Reporting – (GPS Antenna Required)

Note:

▸ Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

[1] **Wideband operation not available in the USA**

Frequency Code	Frequency Band	TM9355	TM9357	TM9315 25W	TM9395
B1	136-174MHz	✓	✓	✓	✓
C0^	174-225MHz	✓	✓	✓	✓
H5	400-470MHz	✓	✓	✓	✓
H7	450-520MHz	✓	✓	✓	✓
K5[1]	762-870MHz	✓	✓		✓
L3[1]	896-941MHz	✓	✓		✓

Note: [1] - NON-ETSI Approved. FCC and IC Approval only
^ - July 2017 Release

TM9355 – STD or HHCH

Standard package includes:

▸ TM9355 DMR mobile radio (power lead depends on band)

▸ Standard microphone

▸ U-Cradle vehicle installation kit (excluding antenna)

▸ BNC connector (please note that mini-UHF connector is also available)

▸ User Manual

Standard Features:

▸ DMR Tier 3 Trunking

▸ DMR Tier 2 Conventional

▸ Analog conventional operation (see feature table on page 8 to 13 for details)

▸ Analog MPT 1327 trunking operation (see feature table on page 8 to 13 for details)

▸ LCD display

▸ Roaming between MPT1327 and DMR

▸ Text and status messaging capabilities

▸ Lone Worker operation

▸ PSTN Dialling

▸ Remote stun and revive

▸ 4 programmable function keys (including emergency key)

▸ Internal options space

▸ IP54 certified

▸ MIL-Std 810C, D, E, F and G

Options:

▸ Analog only operation

▸ Keypad microphone (Change "A" to B)

▸ Wideband Operation (25kHz)[1]

▸ External Speaker

▸ Various mounting options

▸ Remote installation kit options

▸ Direct connect GPS

▸ Also available with yellow or green front panel

Note:

▸ Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

▸ For more configuration options, please refer to the TM9300 Mobile configuration table on page 3

[1] **Wideband operation not available in the USA**

Frequency Code	Frequency Band	TM9355	TM9357	TM9315	TM9395
B1	136–174MHz	25W or 50W	✓	✓	✓
C0^	174-225MHz	25w or 40W	✓	✓	✓
H5	400-470MHz	25w or 40W	✓	✓	✓
H7	450-520MHz	25W or 40W	✓	✓	✓
K5[1]	762-870MHz	30/35W	✓		✓
L3[1]	896-941MHz	30W	✓		✓

Note: [1] **- NON-ETSI Approved. FCC and IC Approval only**
^ **- July 2017 Release**

TM9357 - Dual Control Head

Standard package includes:

▸ TM9357 DMR mobile radio (power depends on band)

▸ Dual control heads

▸ Two standard microphones

▸ U-Cradle vehicle installation kit (excluding antenna)

▸ BNC connector (please note that mini-UHF connector is also available)

▸ User Manual

Standard Features:

▸ DMR Tier 3 Trunking

▸ DMR Tier 2 Conventional

▸ Analog conventional operation (see feature table on pages 8 to 13 for details)

▸ Analog MPT 1327 trunking operation (see feature table on pages 8 to 13 for details)

▸ LCD display

▸ Roaming between MPT1327 and DMR

▸ Text and status messaging capabilities

▸ Lone Worker operation

▸ PSTN Dialling

▸ Remote stun and revive

▸ 4 programmable function keys (including emergency key)

▸ Internal options space

▸ IP54 certified

▸ MIL-Std 810C, D, E, F and G

Options:

▸ Analog only operation

▸ Keypad microphone (Change "A" to B)

▸ Wideband Operation (25kHz)[1]

▸ External Speaker

▸ Various mounting options

▸ Remote installation kit options

▸ Direct connect GPS

▸ Also available with yellow or green front panel

Note:

▸ Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information

▸ For more configuration options, please refer to the TM9300 Mobile configuration table on page 3

1 Wideband operation not available in the USA

Frequency Code	Frequency Band	TM9355	TM9357 Dual Control Head	TM9315	TM9395
B1	136–174MHz	✓	25W or 50W	✓	✓
C0^	174-225MHz	✓	25W or 50W		✓
H5	400-470MHz	✓	25W or 40W	✓	✓
H7	450-520MHz	✓	25W or 40W	✓	✓
K5[1]	762-870MHz	✓	30/35W		✓
L3[1]	896-941MHz	✓	30/35W		✓

Note: [1] **- NON-ETSI Approved. FCC and IC Approval only**
       ^ - July 2017 Release

TM9395

Standard package includes:

▸ Blank Control Head with front access programming port

▸ TM9395 DMR mobile radio (transmit power depends on band)

▸ U-Cradle vehicle installation kit (excluding antenna)

▸ BNC connector (please note that mini-UHF connector is also available)

▸ User Manual

Standard Features:

▸ DMR Tier 2 Conventional

▸ DMR Tier 3 Trunking (Optional)

▸ Analog conventional operation (see feature table on page 8 to 13 for details)

▸ Analog MPT 1327 trunking operation (see feature table on page 8 to 13 for details)

▸ Advanced System Integration Capabilities

▸ Roaming between MPT1327 and DMR

▸ Text and status messaging capabilities

▸ Built in MAP27 support

▸ PSTN Dialling

▸ Remote stun and revive

▸ Internal options space

▸ IP54 certified

▸ MIL-Std 810C, D, E, F and G

▸ Programmable I/O & Audio-tap points

▸ 1200/2400 Baud FFSK Modem

Options:

▸ Analog only operation

▸ Wideband Operation (25kHz)[1]

▸ Various mounting options

▸ Direct connect GPS

Note:

▸ Not all products have compliance in all regions/countries. Please check the Tait Product Specification sheet or contact your Tait Representative for further information.

▸ For more configuration options, please refer to the TM9300 Mobile configuration table on page 3

1 Wideband operation not available in the USA

Frequency Code	Frequency Band	TM9355	TM9357	TM9315	TM9395
B1	136–174MHz	✓	✓	✓	25W or 50W
C0^	174-225MHz	✓	✓		25W or 50W
H5	400-470MHz	✓	✓	✓	25W or 40W
H7	450-520MHz	✓	✓	✓	25W or 40W
K5[1]	762-870MHz	✓	✓		30/35W
L3[1]	896-941MHz	✓	✓		30/35W

Note: [1] - NON-ETSI Approved. FCC and IC Approval only
^ - July 2017 Release

TM9300 - Features Comparison

OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
Conventional Channels	1500		1500		100	100		
Trunked Channels		1000		1000			100[1]	100[1]
Digital Simplex			✓					
Zones	26	Max.1000	26	Max.1000				
Scan Groups	300		300		100	100		
Advanced hunt routines		✓		✓			✓	✓
Manual site select		✓		✓				
Multiple network capability		✓		✓			via pre-set #	via pre-set #
Repeater talkaround	✓					✓		
Scanning	✓		✓		✓	✓		
Transmit Lockout	✓	✓	✓	✓	✓	✓	✓	✓
Transmit Low Power	✓	✓	✓	✓	✓	✓	✓	✓
Transmit Timer	✓	✓	✓	✓	✓	✓	✓	✓
Voting	✓		✓		✓	✓		
CTCSS (Continuous Tone Controlled Squelch System)	✓					✓		
CTCSS on conventional channel (Trunked)		✓						

OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
CTCSS on traffic channel (Trunked)		✓					✓	
DCS (Digitally Coded Squelch)	✓					✓		
MDC1200 (En/Decode)	✓					✓		
Multiple SELCALL Networks	✓					✓		
Programmable Group Tone	✓					✓		
Programmable User Defined SELCALL Tone Set	✓					✓		
SELCALL (Selective calling)	✓					✓		
Type 99 Decode	✓					✓		
Workgroups		Max.1000		Max.1000				
Talk Groups		1500	TBC	1500	TBC		100	100
Broadcast group call		✓		✓			via pre-set #	via pre-set #
Conference group call		✓	✓	✓	✓		via pre-set #	via pre-set #
Group Calls	✓	✓	✓	✓	✓	✓	via pre-set #	via pre-set #
Individual Calls		✓	✓	✓			via pre-set #	via pre-set #
Interfleet Calls		✓		✓			via pre-set #	via pre-set #
PABX calls (Private Automatic Branch Exchange)		✓		✓			via pre-set #	via pre-set #
Preset Calls	✓	✓		✓			✓	✓
Priority Call	✓	✓	✓	✓	✓		via pre-set #	via pre-set #
Priority Call - 3 Level Priority				✓				via pre-set #
PSTN calls (Public Switched Telephone Network)		✓		✓			via pre-set #	via pre-set #

OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
Status messages	✓	✓	✓	✓				
Automatic call back	✓	✓		✓		✓		
Dynamic regrouping		✓		✓			✓	✓
Join busy group		✓	✓	✓	✓		✓	✓
Monitor Function	✓					✓		
Nuisance Delete from Group	✓		✓		✓	✓		
SDM (Short Data Message)		✓	CCDI Only	✓	CCDI Only		RAP only	RAP only
Call Alerts			✓		✓			
OACSU (Off Air Call Setup)			✓		✓			
Radio Check.			✓		✓			
All Identity Call		✓	✓	✓	✓		via pre-set #	via pre-set #
PATCS Push and Talk Call Setup	✓		✓		✓	✓		
Data Features								
CCDI (Computer Controlled Data Interface)	✓		✓		✓	✓		
FFSK	✓					✓		
Radio Access Protocol (RAP) (Map27)		✓		✓			✓	✓
Packet Data			✓	✓	✓			✓
Alphanumeric Pre-sets (Labels)		100		100				
LCD Display	✓	✓	✓	✓	Limited	Limited	Limited	Limited
4 Programmable Function Keys - including Emergency Key	✓	✓	✓	✓	✓	✓	✓	✓

OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
Keypad Microphone (optional)	✓	✓	✓	✓				
Alphanumeric Labels	✓	✓	✓	✓				
ANI (Automatic Number Identification)	✓		✓	✓				
Audible Indicator Control	✓	✓	✓	✓	✓	✓	✓	✓
Auto Noise Reduction (ANR)	✓	✓				✓	✓	
Auto Quiet Timer	✓						✓	
Backlight Control	✓	✓	✓	✓	Limited	Limited	Limited	Limited
Busy Channel Lockout (Also known as Transmit Inhibit)	✓		✓		✓		✓	
Call Diversion	✓	✓		✓				
Call in absence indicator		✓		✓				
Call Queuing		✓		✓				
Call time limit display		✓		✓			Limited	Limited
Caller ID	✓	✓	✓	✓			✓	✓
Channel Presets	✓	✓				✓		
Deferred Calling	✓							
DTMF (Dual Tone Multi Frequency) (Encode)	✓	✓	✓	✓		✓		
Key Beeps / Confidence Tones / Audible Indicators	✓	✓	✓	✓	✓	✓	✓	✓
Key Lock	✓	✓	✓	✓				
LCD Contrast Adjust	✓	✓	✓	✓				
Network name		✓		✓				

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OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
Voice Annunciation	✓	✓	✓	✓				
Programmable Group Membership	✓		✓					
PTT Redial		✓		✓				
Side-tone generation	✓					✓		
Squelch override	✓							
Status labels	✓	✓	✓	✓				
Talker ID	✓	✓	✓	✓			✓	
Trunked Channel Display		✓		✓				
Go ahead tone		✓	✓	✓	✓		✓	✓
Ruggedness								
Military Standard 810 C, D, E, F & G	✓	✓	✓	✓	✓	✓	✓	✓
IP54 Certified	✓	✓	✓	✓	✓	✓	✓	✓
Usability								
Remote Mount Configuration (optional)	✓	✓	✓	✓	✓	✓	✓	✓
Options Board Space	✓	✓	✓	✓	✓	✓	✓	✓
Safety and Security								
External GPS (optional)	✓	✓	✓	✓	✓	✓	✓	✓
Transmit GPS During Voice Calls			✓	✓	✓			✓
Lone Worker	✓	✓	✓	✓	✓	✓	✓	✓
Programmable Emergency Key	✓	✓	✓	✓	✓	✓	✓	✓

OPERATION MODE Radio Features	Analog Conventional TM93xx	Analog MPT 1327 TM93xx	DMR Tier 2 Conventional TM93xx	DMR Tier 3 Trunking TM93xx	DMR Tier 2 Conventional 2Dig Control Head	Analog Conventional 2Dig Control Head	Analog MPT1327 2Dig Control Head	DMR Tier 3 Trunking 2Dig Control Head
Voice Inversion Scrambler	✓	✓				✓	✓	
Emergency Call	✓	✓	✓	✓	✓	✓	✓	✓
Remote monitor (enables Microphone and Transmitter remotely)			✓		Rx Only[2]			
Stun & Revive (Remote)	✓	✓	✓	✓	✓	✓	✓	✓
Encryption, Single key 56 Bit DES.- (optional)			✓	✓	✓			✓
Encryption, ARC4			✓		✓			

1 A total of 100 trunked pre-set calls per network are available on the TM9315 for all call types, including individual, group, broadcast and rapid call strings.

2 The radio will respond to remote monitor requests but cannot make requests itself.
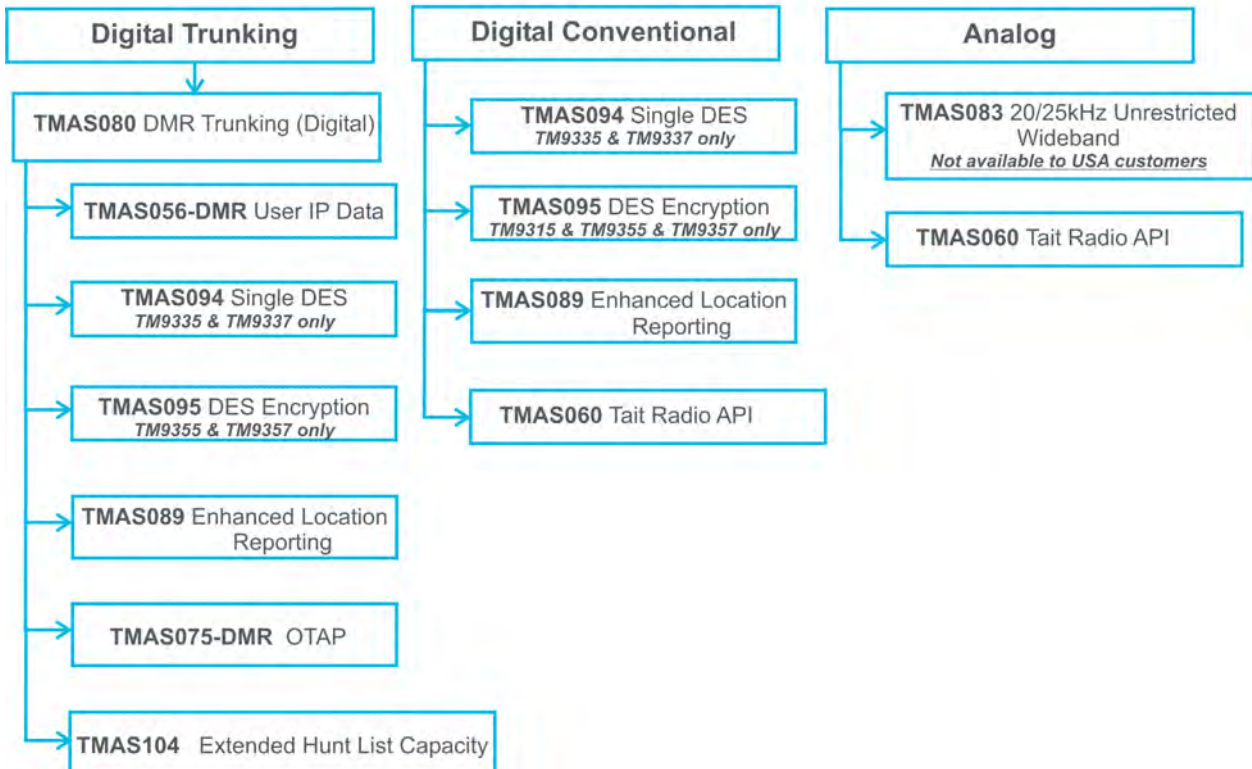
Software Licenses

ITEM CODE	DESCRIPTION
TMAS060	SFE Key - Tait Radio API
TMAS080	SFE Key - DMR Trunking (93)
TMAS083[1]	SFE Key - 20/25khz Unrestricted Wideband (TB71/TM81/82/91/93/94)
TMAS089	SFE Key - Enhanced Location Reporting (91/93/94)
TMAS056-DMR	SFE Key - User IP Data
TMAS094	SFE Key - Unrestricted Dist. DES Encryption (9335/9337)
TMAS095	SFE Key - DES Encryption (9355/9357)
TMAS075-DMR	SFE Key - OTAP
TMAS104	SFE Key - Extended Hunt List Capacity

[1] *Note: Required only if Wide Band (WB) is being added to a Narrow Band (NB) radio. Not available to USA customers*

Software maintenance and support is available on an annual renewal basis. Software maintenance ensures your software investment remains fully operational, high performing and current through updates that also include valuable new features – please contact your Tait Representative for further details

Software Licences

All software enhancements are enabled on a per feature per radio.
Default licences are TMAS011 MPT Trunking (NOT Available on TM9315) and TMAS081 GPS Location Services and TPAS102 - ARC4 Encryption (93) plus TMAS097 DMR Conventional is a default licences from July 2014.

Digital Trunking

TMAS080 DMR Trunking (Digital)

TMAS056-DMR User IP Data

TMAS094 Single DES
TM9335 & TM9337 only

TMAS095 DES Encryption
TM9355 & TM9357 only

TMAS089 Enhanced Location Reporting

TMAS075-DMR OTAP

TMAS104 Extended Hunt List Capacity

Digital Conventional

TMAS094 Single DES
TM9335 & TM9337 only

TMAS095 DES Encryption
TM9315 & TM9355 & TM9357 only

TMAS089 Enhanced Location Reporting

TMAS060 Tait Radio API

Analog

TMAS083 20/25kHz Unrestricted Wideband
Not available to USA customers

TMAS060 Tait Radio API

TM9300 - Outline of Software Feature Sets

Baseline Feature Set
All radios now have the following features as standard.
Radios manufactured prior to the dates shown will not have these features enabled by default. Older radios will require a firmware upgrade and the feature licence to enable operation of the feature. Please contact your Tait Sales representative for further advice

General
TMAS031   **SFE Key - MPT Trunking (Analog)**
Enables MPT1327 Analogue Trunking mode in the TM9300, allowing the TM9300 to be used on older MPT networks. The TM9300 roams seamlessly between MPT and DMR Trunked systems, giving an easy migration from MPT to a DMR trunked system.
TMAS060 Tait Radio API
Enables access to CCDI and CCR radio control protocols. • Confirmed and unconfirmed data access • Access to API functions for trunking, encryption etc. Functions require access to appropriate SFEs.
TMAS081   **SFE Key - GPS Hardware / Location Services**
The radio supports GPS (Global Positioning System) and AVL (Automatic Vehicle Location) features. Mobile radios require a standalone GPS receiver to be attached to a serial port. Features include displaying the radio's location, and GPS reporting (polling and unsolicited GPS reporting).
TMAS097   **SFE Key - DMR Conventional**
Enables DMR Tier 2 conventional operation in the TM9300 radio. The TM9300 can roam seamlessly between DMR Tier 2 networks and Analogue conventional networks.
TMAS102   **SFE Key - ARC4 Encryption**
ARC4 is a basic level of encryption that offers privacy from less sophisticated attacks. ARC4 encryption is supported in DMR Tier 2 mode only.

Optional Feature Set
Optional Features may be included with the radio, depending on the product code selected, or can be added later via the Software Feature Licence. The release date for each feature is listed. Product manufactured before this date will require a firmware update as well as the feature licence.
TMAS080   **SFE Key - DMR Trunking**
Enables DMR Tier 3 trunking operation in the TM9300 radio. The TM9300 can roam seamlessly between DMR Tier 3 networks and Analogue MPT trunked networks.
TMAS083   **SFE Key - 20/25khz Unrestricted Wideband**
By default, the TM9300 limits the bandwidth to 12.5kHz on the VHF band and most of the UHF band. This feature licence enables wideband operation on all frequencies. This SFE is not available to customer in the USA.
TMAS056-DMR   **SFE Key – User IP Data**
The data Service SFE allows third party applications to be connected for "send and receive" packet data via the ancillary port of the radio.
TMAS094   **SFE Key - DES Encryption (9335/9337)**
56 Bit DES encryption is available for voice communications on DMR conventional and trunked networks The encryption and decryption of radio communications requires the use of encryption keys. The programming application configures the way the encryption keys are used, and loads the encryption keys into the radio. This Feature Licence is for use with TM9335/37 radio's
TMAS095   **SFE Key - DES Encryption (9355/9357)**
56 Bit DES encryption is available for voice communications on DMR conventional and trunked networks The encryption and decryption of radio communications requires the use of encryption keys. The programming application configures the way the encryption keys are used, and loads the encryption keys into the radio. This feature licence is for use with TM9355/57 radios.
TMAS075-DMR   **SFE Key - OTAP**
OTAP (Over the Air Programming) makes it possible for EnableFleet to automatically update the configuration of Tait Radios. OTAP is supported by EnableFleet version 2.0 and above. It makes use of the radio networks data services.
TMAS089   **SFE Key - Enhanced Location Reporting**
Distance-based GPS reporting that sends a location report at a set distance, or at different distances depending on the current speed. Allows you to send a location report if the bearing, or altitude changes by a prescribed amount. This SFE requires careful consideration of system set-up to avoid excessive amounts of un-poled data on the network.
TMAS104   **SFE Key - Extended Hunt List Capacity (93)**
Hunting is the process by which a Terminal searches for a valid Control Channel (CC) on a DMR Trunked system, either on start-up or when service has been lost with Extended Hunting take the standard available Hunt channels from 20 channels to an Extended Hunt List of 120 channels.

Control Head Remote Kits

ITEM CODE	DESCRIPTION
Single	
T02-00061-2001	TM93/94 Remote Head Upgrade Kit 6m (20ft)
T02-00061-2002	TM93/94 Remote Head Upgrade Kit 12m (40ft)
T02-00061-2003	TM93/94 Remote Head Upgrade Kit 18m (60ft)
Dual	
T02-00062-2001	TM9300 Dual Remote Head Upgrade Kit 18m (60ft)
Hand Held Control Head	
T02-00063-1001	TM9300 Hand Held Control Head Kit
Remote Head Extender Kits	
T02-00064-2001	TM93/94 Remote Head Extender Full Upgrade Kit AUS/NZ
T02-00064-2002	TM93/94 Remote Head Extender Full Upgrade Kit US
T02-00064-2003	TM93/94 Remote Head Extender Full Upgrade Kit EU
T02-00064-2004	TM93/94 Remote Head Extender Full Upgrade Kit UK
T02-00064-2005	TM93/94 Remote Head Extender Basic Upgrade Kit AUS/NZ
T02-00064-2006	TM93/94 Remote Head Extender Basic Upgrade Kit US
T02-00064-2007	TM93/94 Remote Head Extender Basic Upgrade Kit EU
T02-00064-2008	TM93/94 Remote Head Extender Basic Upgrade Kit UK

Option Board

ITEM CODE	DESCRIPTION
T02-00007-ABAA	TM81/82/93/94 Line Interface Board
T02-00007-BAAA	TM81/82/93/94 RS232 Interface Board
TA3140-01	Spare Kit - Vehicle PA Option Board

Microphones & Speakers

ITEM CODE	DESCRIPTION
T02-00004-0101	TM Telephone Handset TDMA
T02-00005-AAAA	TM Standard Microphone TDMA
T02-00005-AABA	TM Standard Microphone TDMA 3m Curly Cord
T02-00005-ABAA	TM Keypad Microphone TDMA
T02-00005-ABBA	TM Keypad Microphone TDMA 3m Curly Cord
T02-00005-ACAA	TM Desktop Microphone TDMA
T02-00005-ADAA	TM Handsfree Microphone TDMA
T02-00005-ADCA	TM Remote PTT + Microphone TDMA
TMAA10-03	TM External Speaker 10W for 25W Radio
TMAA10-06	TM External Speaker 10W for 30-50W Radio
T02-00004-0201	TM Horn Speaker Kit 112dB SPL for 25W Radio
T02-00004-0202	TM Horn Speaker Kit 112dB SPL for 30-50W Radio

T02-00004-0101
TM Telephone Handset TDMA

T02-00005-AAAA
TM Standard Microphone TDMA

T02-00005-AABA
TM Standard Microphone TDMA
3m Curly Cord

T02-00005-ABAA
TM Keypad Microphone TDMA

T02-00005-ABBA
TM Keypad Microphone TDMA
3m Curly Cord

T02-00005-ACAA
TM Desktop Microphone TDMA

T02-00005-ADAA
TM Handsfree Microphone
TDMA

T02-00005-ADCA
TM Remote PTT + Microphone
TDMA

T02-00004-0201
TM Horn Speaker Kit 112dB
SPL for 25W Radio

T02-00004-0202
TM Horn Speaker Kit 112dB
SPL for 30-50W Radio

TMAA10-03
TM External Speaker 10W for
25W Radio

TMAA10-06
TM External Speaker 10W for
30-50W Radio

Installation Kits

ITEM CODE	DESCRIPTION
T02-00009-0101	Cable Shielded 8 Core with RJ45 Grommet 0.6m (2ft)
T02-00009-0102	Cable Shielded 8 Core with RJ45 Grommet 1.5m (4.92ft)
T02-00009-0103	Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)
T02-00009-0104	Cable Shielded 8 Core Twisted Pair with RJ45 Grommet 12m (40ft)
T02-00009-0105	Cable Shielded 8 Core with RJ45 Grommet 3m (10ft)
T02-00009-0201	Cable Shielded 8 Core RJ45M/F Ext 1.6m (5ft)
T02-00009-0202	Cable Shielded 8 Core RJ45M/F Ext 3m (10ft)
T02-00009-0203	Cable Shielded 8 Core RJ45M/F Ext 6m (20ft)
T02-00009-0204	Cable Shielded 8 Core RJ45M/F Ext 9m (30ft)
T02-00034-ABAA	Cable Breakout Telemetry/Horn
TMAA04-05	Cable Ignition Sense 4m (13.12ft)
TMAA03-01	Install Kit BNC 25W U-Cradle
TMAA03-22	Install Kit BNC 30-50W U-Cradle
TMAA03-23	Install Kit M-UHF 25W U-Cradle
TMAA03-17	Install Kit M-UHF 30-50W U-Cradle
TMAA03-02	Security Cradle
TMAA03-11	Reinstall Kit BNC 25W
TMAA03-20	Reinstall Kit BNC 30-50W
TMAA03-15	Reinstall Kit M-UHF 25W
TMAA03-10	Reinstall Kit M-UHF 30-50W
TMAA03-14	U-Cradle
TMAA03-32	Install Kit Handheld Control Head Remote Breakout Box

T02-00009-0101
Cable Shielded 8 Core with RJ45 Grommet 0.6m (2ft)

T02-00009-0102
Cable Shielded 8 Core with RJ45 Grommet 1.5m (4.92ft)

T02-00009-0103
Cable Shielded 8 Core with RJ45 Grommet 6m (20ft)

T02-00009-0104
Cable Sheilded 8 Core Twisted Pair with RJ45 Grommet 12m (40ft)

TMAA03-01
Install Kit BNC 25W U-Cradle

TMAA03-23
Install Kit M-UHF 25W U-Cradle

TMAA03-22
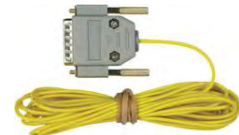Install Kit BNC 30-50W U-Cradle

TMAA03-17
Install Kit M-UHF 30-50W U-Cradle

TMAA04-05
Cable Ignition Sense 4m (13.12ft)

TMAA03-11
Reinstall Kit for 25 Radio BNC

TMAA03-20
Reinstall Kit for 30-50W Radio BNC

TMAA03-14
U-Cradle

TMAA03-02
Security Cradle

GPS Receivers & Accessories

ITEM CODE	DESCRIPTION
TMAA05-01	GPS Receiver Garmin Flush Mount
TMAA05-02	Magnetic Mount Kit for TMAA05-01
TMAA05-03	Plate Mount Kit for TMAA05-01
TMAA05-04	GPS Receiver Garmin Magnetic Mount
TMAA05-05	GPS Receiver PCTEL Magnetic Mount
TMAA05-06	GPS Receiver PCTEL Through Hole Mount

TMAA05-01
GPS Receiver Garmin Flush Mount

TMAA05-03
Plate Mount Kit for TMAA05-01

TMAA05-04
GPS Receiver Garmin Magnetic Mount

TMAA05-05
GPS Receiver PCTEL Magnetic Mount

TMAA05-06
GPS Receiver PCTEL Through Hole Mount

Desktop Power Supplies

ITEM CODE	DESCRIPTION	
TMAA13-21	Desktop Power Supply 23A DC 230V AC ANZ	Radio mounting bracket is required. Please also order one of TMAA03-06, TMAA03-13, TMAA03-09 or TMAA03-12.
TMAA13-22	Desktop Power Supply 23A DC 120V AC US/CAN	
TMAA13-23	Desktop Power Supply 23A DC 230V AC UK	
TMAA13-24	Desktop Power Supply 23A DC 230V AC EU	

TMAA13-21
Desktop Power Supply 23A DC 230V AC ANZ

TMAA13-22
Desktop Power Supply 23A DC 120V AC US/CAN

TMAA13-23
Desktop Power Supply 23A DC 230V AC UK

TMAA13-24
Desktop Power Supply 23A DC 230V AC EU

Desktop Install Kits

ITEM CODE	DESCRIPTION
TMAA03-06	Install Kit Desktop Power Supply U-Cradle 25W Radio
TMAA03-13	Install Kit Desktop Power Supply U-Cradle 30-50W Radio
TMAA03-09	Install Kit Desktop Power Supply Plinth 25W Radio
TMAA03-12	Install Kit Desktop Power Supply Plinth 30-50W Radio

TMAA03-06
Install Kit Desktop Power
Supply U-Cradle 25W Radio

TMAA03-13
Install Kit Desktop Power
Supply U-Cradle 30-50W
Radio

TMAA03-09
Install Kit Desktop Power
Supply Plinth 25W Radio

TMAA03-12
Install Kit Desktop Power
Supply Plinth 30-50W Radio

Programming & Service Accessories

ITEM CODE	DESCRIPTION
T02-00031-0001	TM81/82/93/TP81/93 Programming & Calibration Kit
T02-00031-0007	TM93/94 Service Kit
TMAA20-02	Adaptor RJ45 to DB9 Adaptor
TMAA20-03	Cable 25W Radio Power Connector to Banana Plug
TMAA20-04	Adaptor RJ12 Socket/RJ45 Plug
TMAA21-01	Cable DB15 Socket/RJ45 Plug