

Rugged • High Speed Data • Integrator Friendly

The Tait 8000 Series of innovative and high-performing products sets a standard of excellence for analogue radio communications technology. With advanced software-flexible features, 8000 Series products lead their class.

- 25W, 24-Channel Conventional Radio
- Intuitive Interface with 2-Digit Display
- Digital Controller Design
- Optional Internal High Speed Data Modem
- Rugged Construction
- Robust RF Performance
- Ultimate Flexibility for System Integration
- Internal AVL Software Support
- Windows-based Programming Application

TM8115 mobile

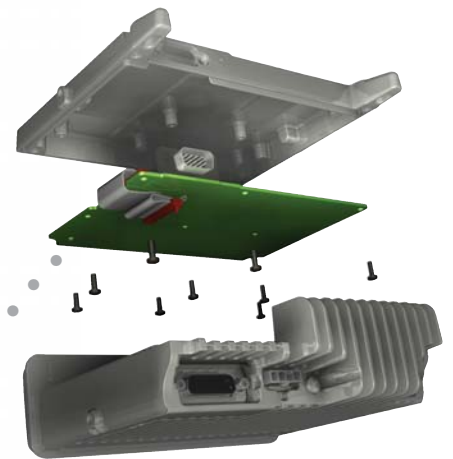


TM8115 mobile

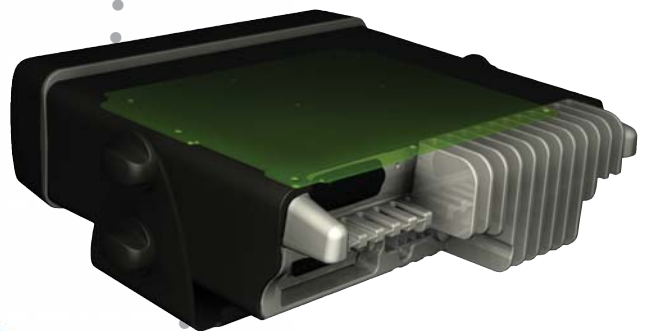
Leading its class, the new TM8115 is a robust, software-flexible radio, ideal for a wide range of voice and data applications.

Based on Digital Signal Processor (DSP) technology and capable of transmitting high speed data through an internal software modem, these new radios offer everything you need for reliable voice and data communications — and have been designed with ultimate flexibility for system integration.

The TM8115 offers high performing, innovative and proven technology at a competitive price.



large options board area



multiple D-range and serial ports



Features

Digital Controller Design

The TM8115 features a state-of-the-art DSP, providing exceptionally fast and reliable data processing. This optimises performance of IF filtering, FM demodulation, and transceiver and receiver audio processing.

Data Ready

Suited to the latest mobile data applications, the TM8115 supports 1200 baud FFSK data out-of-the-box. System integrators can also connect external high speed modems via a robust D-range. A transmitter rise time under 10mS and very low group delay make the TM8115 the perfect platform for data applications.

Internal High Speed Data Modem — Software Option

This optional software-based modem supports over 9600 bits per second and is activated with a software key. Digital processing optimises RF performance gains for both built-in and external modems, improving the integrity of your data.

Rugged Construction

Engineered with a strong diecast metal chassis and almost entirely constructed using Surface Mount Technology (SMT), the TM8115 meets stringent specifications for reliability including the MIL-STD 810 C, D, E & F specs and IP54.

Robust RF Performance

The TM8115 has been built using innovative RF design. When the radio detects unusually high transmitter temperatures it reduces power output so it can continue to operate effectively.

Advanced System Integration Capabilities

Featuring industry-leading integration capabilities, the TM8115 has been designed with customisation in mind. The built-in modems, serial control, AVL engine support and high speed data make the TM8115 a market leader. The integrator has maximum design flexibility with multiple ports for auxiliary connectors and a large options board area. The comprehensive 3DK Hardware Developer's Kit provides hardware and software tools for customisation.

Application-Ready Software

The TM8115 features many formats and hooks for application development. An AVL application can be easily integrated with the supported polling vehicle location format and direct connect GPS receiver port. Mobile alarm monitoring, asset tracking, and public address features are also simple additions with the TM8115 software interfaces.

Standard Features:

- Full Selcall Functionality
- DTMF Encoder
- Built-in CTCSS/DCS
- Multiple Scanning and Voting Formats Supported
- Emergency Mode, Stun and Revive
- Low Stand-by Power Consumption
- Three Control Signal Outputs
- Four RF Power Levels
- Three Mute Settings
- Handset Audio
- Remote Volume Control
- AVL Software Support
- Third Party Control Head Capable

Optional Features:

- Public Address System
- Comprehensive 3DK Hardware Developer's Kit with Target Board and Development Software Examples
- Blank Control Head



TM8105 data radio also available



TM8115 Specifications

General

Frequency Range	136-174MHz 400-470MHz 450-530MHz 216-266MHz
Frequency Stability	+/-1.5ppm
Channel Capacity	24 channels (simplex or semi-duplex)
Power Supply	10.8-16VDC
Channel Spacing	12.5/20/25kHz
Dimensions (LxWxH)	175 x 160 x 50mm 6.88 x 6.29 x 1.97 inches
Weight	1.43kg 50.44oz
Operational Temperature	-30°C to +60°C (-22°F to +140°F)
Sealing	Passes dust and rain testing to IP54
Vibration	Meets IEC 60571
Low Pressure	MIL-STD 810C,D,E & F
High Temperature	MIL-STD 810C,D,E & F
Low Temperature	MIL-STD 810C,D,E & F
Temperature Shock	MIL-STD 810C,D,E & F
Solar Radiation	MIL-STD 810C,D,E & F
Rain	MIL-STD 810C,D,E & F
Humidity	MIL-STD 810C,D,E & F
Salt Fog	MIL-STD 810C,D,E & F
Dust	MIL-STD 810C,D,E & F
Vibration	MIL-STD 810C,D,E & F
Shock	MIL-STD 810C,D,E & F
RF Connector	50 Ohm BNC/mini UHF
Interface Connectors	3 Interface Connectors with Serial Ports
Programmable Digital I/O and Audio Tap Points	

Transmitter

Output Power	1,5,10,25W
Modulation Limiting	<+/-2.5kHz 12.5kHz <+/-4kHz 20kHz <+/-5kHz 25kHz
FM Hum and Noise	>38dB 12.5kHz >41dB 20kHz >43dB 25kHz
Conducted/Radiated Emissions	<-36dBm to 1GHz <-30dBm 1-4GHz below 500MHz <-30dBm 1-12.75GHz above 500MHz
Audio Response	300-3kHz Flat or with pre-emphasis
Audio Distortion	< 3% at 1kHz 60% mod
Transmit Rise Time	<10mS

Receiver

Sensitivity	< -118dBm for 12dB SINAD
Intermodulation	>66dB
Selectivity	>65dB 12.5kHz >70dB 20kHz >75dB 25kHz
Spurious Responses	>72dB
Audio Distortion	<3%
Hum and Noise	>40dB 12.5kHz >41dB 20kHz >43dB 25kHz
Audio Response	300-3kHz Flat or de-emphasis
Receive Detect Time	< 3mS

Authorised Dealer



Specifications are subject to change without notice and shall not form part of any contract. They are issued for guidance purposes only. For further information please check with your nearest Tait office or authorised dealer.

FCC Rule 2.803 (c)(e)(iii) applies: This device has not been authorised as required by the rules of the Federal Communications Commission. This device is not, and may not be offered for sale or lease, or sold or leased, until authorisation is obtained.

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