



# Fixed Equipment

**T800 Series II**



**T800SL Basestations**

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# T800 Series II

**T800**  
SERIES II

T800 series II is a comprehensively featured range of products, specially designed to fulfill the requirements of fixed radio equipment. High performance, inherent reliability and rugged construction make the T800 range ideal for professional applications.

The T800 series II family of modular basestations and ancillaries provide proven reliability, high performance and numerous system integration features.

## Select

- **T800 Series II 25W Transmitters**  
Modular Basestation Transmitter
- **T800 Series II Receiver**  
High Performance Modular Basestation Receiver
- **T800 series II 50-100W Transmitters**  
Modular Basestation Exciter + Power Amplifier
- **TA703-01 Basestation Changeover Module**
- **TA320 Power Combiner**
- **TA060, TA091 Slimline Products**  
(71KB) - pdf document only
- **T703 Basestation Changeover Module**  
(78KB) - pdf document only
- **Remote Monitoring**  
Fixed equipment remote monitoring products
- **Packaging Options**  
Product packaging, format options

**T800 series II High Performance Modular Basestations**



# 25W Transmitters

## Modular Basestation Transmitter

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### High Performance

Low noise design with a high level of integral shielding allows use on high density sites. On sites with only a small number of other users, multicoupler and filtering requirements are lower, with corresponding cost savings.

### Thermal Protection

Full thermal protection prevents damage to the transmitters under exceptional conditions.

### Rugged Die-Cast Construction

Integrated die-cast modules give exceptional ruggedness, while maintaining electrical integrity. Combined with extensive use of surface mount technology, the total package is one of outstanding reliability.

### Modular Design

Plug-in modules simplify on-site servicing. A replacement module is simply plugged in, allowing the original to be brought back to the workshop for servicing. Down time is minimised, and the units can be serviced under ideal workshop conditions.

### Versatility

Modular construction allows assembly of systems to individual requirements. Even complex or unusual systems can be realised within a compact size.

### Programmable Channels

Up to 128 channels can be programmed, for internal dipswitch or external control. A single configuration is usually enough to cover all bases in your system, simplifying set-up. Also, you can keep that plug-in replacement for rapid response to system faults.



### Frequency Ranges

#### VHF

66-88 MHz, 136-174 MHz

#### UHF

400-520 MHz, 800-960 MHz

### Rated Power

25W

5W (800-960 MHz)

### Channels

128

### Channel Spacing

12.5 kHz, 20 kHz, 25 kHz, 30 kHz

### Dimensions

191 x 60 x 30mm, 7.5' x 2.4' x 13.4'

#### Multi-channel CTCSS de/encoder

128 channels

#### Paging board (Tone or POCSAG)

#### Slimline repeater package format

#### Power Supply

13.8V, 5A (2A, 800-960 MHz)

#### Rackspace

600mm of 5U, Industry std 483mm  
rack 2.4' of 5U Ind std 19' rack

### Standard Features

Configurable audio processor

Versatile rack formats

Metering outputs

Hand microphone operation

Opto, dc or loop keying

### Technical Compliance

Meets or exceeds FCC requirements  
and European ETS300-086

### Weight

2.1 kg

4.6 lb



# 50 - 100W Transmitters

## Modular Basestation Exciter + Power Amplifier



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### High Performance

Improved modulation performance and low noise design allows use on high density sites. On sites with only a small number of other users, multicoupler and filtering requirements are lower, with corresponding cost savings.

### Continuous Duty

The transmitters are rated for continuous duty at full output power, so they can work harder without fear of overheating. Full thermal protection prevents damage to the transmitters under exceptional conditions.

### Rugged Die-Cast Construction

Integrated die-cast modules give exceptional ruggedness, while maintaining electrical integrity. Combined with extensive use of surface mount technology, the total package is one of outstanding reliability.

### Modular Design

Plug-in modules simplify on-site servicing. A replacement module is simply plugged in, allowing the original to be brought back to the workshop for servicing. Down time is minimised, and the units can be serviced under ideal workshop conditions.

### Versatility

Modular construction allows assembly of systems to individual requirements. Even complex or unusual systems can be realised within a compact size.

### Programmable Channels

Up to 128 channels can be programmed, for internal dipswitch or external control. A single configuration is usually enough to cover all bases in your system, simplifying set-up. Also, you can keep that plug-in replacement for rapid response to system faults.

### Frequency Ranges

**VHF**  
66-88 MHz, 136-174 MHz  
**UHF**  
220-270 MHz, 330-380 MHz  
400-530 MHz, 850-870 MHz

### Channels

128

### Channel Spacing

12.5 kHz, 20 kHz, 25 kHz, 30 kHz

### Rated Power

All bands - 50W continuous duty  
220-270/330-380/400-530 MHz  
100W continuous duty  
850-870 MHz - 70W continuous duty

### Dimensions

191 x 60 x 30mm, 7.5' x 2.4' x 13.4'

### Multi-channel CTCSS de/encoder

128 Channels

### • Paging board (Tone or POCSAG)

- **Power Supply**: 13.8V, 12A (23A for 100W)
- **Rackspace**: 600mm of 5U, Industry std 483mm rack, 2.4' of 5U Ind std 19' rack
- **Standard Features**: Configurable audio processor, Versatile rack formats, Voice and Data compatible, Metering outputs, Dual output stages for reliability, Hand microphone operation, Opto, dc or loop keying
- **Technical Compliance**: Meets or exceeds FCC requirements and European ETS300-086
- **Weight**: 2.1 kg, 4.6 lb



# Receiver

## High Performance Modular Basestation Receiver

### High Performance

Design features low noise circuitry with high intermodulation rejection, giving a high level of immunity to interference. The T800 Receiver is ideally suited for use on high density sites. On sites with only small numbers of other users, then multicoupler and filtering requirements are lower, with corresponding cost savings.

### Rugged Die-Cast Construction

Integrated die-cast modules give exceptional ruggedness, while maintaining electrical integrity. Combined with extensive use of surface mount technology, the total package is one of outstanding reliability.



### Modular Design

Plug-in modules simplify on-site servicing. A replacement module is simply plugged in, allowing the original to be brought back to the workshop for servicing. Down time is minimised, and the units may then be serviced under ideal working conditions.

### Versatility

Modular construction allows assembly of systems to individual requirements. Even complex or unusual systems can be realised within a compact size.

### Programmable Channels

Up to 128 channels can be programmed, for internal dipswitch selection or external control. Also, you can keep that plug-in replacement for rapid response to system faults.

**T800**  
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### Špecifikácia

#### Frequency Ranges

##### VHF

66-88 MHz  
136-174 MHz

##### UHF

220-285 MHz  
330-380 MHz  
400-530 MHz  
800-960 MHz

#### Channels

128

#### Channel Spacing

12.5 kHz, 20 kHz, 25 kHz, 30 kHz

#### Dimensions

191 x 60 x 30mm  
7.5' x 2.4' x 13.4'

#### Options

##### Multi-channel CTCSS de/encoder

128 channels

##### Slimline repeater package format

#### Power Supply

13.8 Vdc

#### Rackspace

600mm of 5U, Industry std 483mm rack  
2.4' of 5U Ind std 19' rack

#### Standard Features

Configurable audio processor  
Received signal strength indicator  
Noise and carrier gated squelch  
Versatile rack formats  
Voice and data compatible

#### Technical Compliance

Meets or exceeds FCC requirements and European ETS300-086

#### Weight

2.1 kg  
4.6 lb



# Packaging Option

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## T800 series II Packaging Options

T800 Series II Standard 19  
5U T800 module packaging option

T800 Series II Slimline Format  
2U T800 module packaging option

T800 series II Portable Repeater  
T800 series II in a compact portable package







# Packaging Option Standard 19

## 5U T800 module packaging option

### Features

Collapsible kit assembly , Mechanical self-alignment of modules , Backplane printed circuit board allows rapid module interconnection while ensuring connection integrity , All modules programmable from single front panel port , Design facilitates maximum airflow for best system reliability

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### Specifications

#### Module Interconnection

Printed circuit board included

#### Module Programming

Front panel

#### Port

#### Modules Capacity

7

#### Rack Space

5U, Ind std 19' (483mm) rack

#### RF Specifications

As for T800 series

#### Speaker Panel

Included (with speaker)



# Packaging Option Slimline Format

## 2U T800 module packaging option

### Features

Integrated speaker , Front mounted module programming port , Access to all T800 series II receiver and transmitter front panel controls and indicators , Optional power supply



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### Specifications

#### Front Panel Access

T800 series II receiver and transmitter front panel controls and indicators

#### Module Capacity

1 x T800 Receiver  
1 x T800 Transmitter (25W)

#### Options

Power supply

#### Programming Port

Integrated

#### Rackspace

2U, Ind std 19' (483mm) rack

#### RF Specifications

As for T800 series II receiver and transmitter specifications

#### Speaker

Integrated





# Packaging Option Portable Repeater

T800 series II in a compact portable package

## **Features**

### Compact

High performance of T800 series II basestation range, Integrated speaker with front panel module programming port

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## **Specifications**

### **Dimensions**

435 x 300 x 235mm

17' x 12' x 9'

### **Portable**

Rapid access frontand rear covers

### **Power Supply**

Internal Lead Acid batteries

### **Programming Port**

Module programming port integrated on front panel

### **Speaker**

Integrated



# TA320 - Power Combiner

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## Wide Frequency Range

The TA320 series covers the VHF and UHF frequency range from 62.5MHz to 550MHz.

## Models

TA320-10: 62.5 - 125MHz

TA320-11: 125 - 250MHz

TA320-12: 225 - 400MHz

TA320-13: 300 - 550MHz

## Continuous Duty

As the T800 series II transmitters are rated for continuous duty at full output power, the addition of the TA320 Power Combiner means that a 200 Watt continuous duty cycle transmitter is realised.

## Transmitter Fallback

A particular advantage of using the TA320 Power Combiner is that in the unlikely event that one of the 100 Watt power amplifiers fails, the output power will still be maintained at 50 Watts. This protects the system from transmitter outage and consequential damages such as loss of revenue.

## Specifications

### Dimensions

183 x 59.5 x 340mm

7.2' x 2.3' x 13.4'

### Fallback

Operation continues even if one transmitter module fails

### Power Output

Up to 200W continuous duty

### Weight

3.1 kg

6.8 lbs



# TA703-01

## Basest Changeover Module

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A fully duplicated base station system consists of a duplicate pair of transmitters receivers, power supplies and the TA703 changeover module. On the changeover module, a front panel switch selects which set of equipment is active during normal operation, relegating the other to stand-by. In the unlikely event of the active equipment developing a fault, the stand-by equipment is brought into operation, typically within one second. When the system performs a changeover, the source of the fault is indicated on the front of the unit and, with (optional). Selcall fitted, the base station can signal the faulty condition to a remote receiving site or mobile or handportable radio.



### Features

**19" (483mm) rack mounting**

**Compact size**

**Multiple parameter monitoring**

**User adjustable thresholds**

**Remote reporting**  
(with the addition of Selcall)

**System Operation**



# Remote Monitoring T803 Tone Remote Alarm Module

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The **T803-00-0000** allows a dispatcher to control and monitor a T800 Series II base-station over atwo or four-wire voice-grade line.

The T803 provides a range of industry-standard tone sets, including **Motorola Guard-Tone™**! and **GE Secur-It™**! formats.

The T803 is thus fully compatible with both standard and customised communications consoles.



The T803 provides the following standard tone-remote functions as an integrated part of the T800 base-station range: Tx Key, Rx monitor, repeater talk-through and F1-F8 channel selection The T803 creates extra value for the customer, providing the following additional functionality, depending on how it is configured.

#### **Alarm monitoring.**

ncludes Tx forward power, reverse power, battery low and line failure. Alarm generation is selectable from common 5-tone sequences and/or a 'pip' tone down the line and/or over-the-air.

Alarms can be canceled remotely from the dispatch console or locally via the front panel Simple site control:

Allows remote operation of up to four 'wildcard' open-collector outputs which are typically used for controlling site access or tower lighting

#### **Voting tone generation.**

Provides for three types of voting tone sequences, which are compatible with industry standard formats.

### Benefits

#### **DSP-based Operation**

No adjusting of potentiometers  
No frequency-drift over time  
Consistent and reliable tone detection and filtering  
Deep rejection to air of the low level guard tone (LLGT)

Flexibility - configuration via a companion software package (PGM800win ver 3.0) allows easy configuration for operation with standard consoles or enhanced customised operation.

Plug & Play - The module requires no messy rack wiring or expensive technician time. Simply plug the T803 into the T800-27-000x base station rack and configure via PGM800Win

Saves Rack Space - Integration of the speaker, programming jack and microphone socket means that the T803 module does not use up an extra module slot in the T800-27-000x rack

#### **Extra Value-added**

Line-fail detection initiates repeater talk-through and alarm action

- Momentary channel monitor after function tones
- Alarms or alarm pip-tone can be canceled remotely
- Duplex operation as a standard feature



# T800 SL Basestations



## **T800SL Base Station**

The new T800 Slim Line Base Station offers the high performance of Tait T800 RF Modules at an economical price. Dependable in the busiest or most remote sites, the T800SL Base Station range redefines the price-performance benchmark.

**T800**  
SERIES //







# T800SL Base Station

The new T800 Slim Line Base Station offers the high performance of Tait T800 RF Modules at an economical price. Dependable in the busiest or most remote sites, the T800SL Base Station range redefines the price-performance benchmark.



The new T800SL range of base stations provides high-end base station performance at a low-end price. Using proven T800 modules as an RF platform, professional 25W base-station performance is obtainable at similar prices to that of two mobiles in a box.

The T800SL product can be configured as a conventional repeater, a line connected (tone remote controlled) base station or used with complementary Tait Electronics MPT1327 control equipment 1 to configure a very cost-effective trunked radio network .

Occupying only 2U in a 19' rack, the T800SL Base Station facilitates quick and easy interfacing to other infrastructure, via a well-integrated and robust pcb backplane design. This approach, based on years of industry experience, provides system flexibility via easily accessible jumper links, connectors and dip-switches on the rear of the unit.

## Benefits

### Value Proposition

Professional RF performance at unprecedented price

### Quick Installation

Well-integrated design minimises technician time on rack configuration

### Product Breadth

66-88MHz, 136-174MHz, 400-520MHz, 800-960MHz (5W)

### Easy to Configure

Jumpers, dip switches and snap connectors means no messy wiring

### Rack Occupancy

2U 19' rack mount conserves valuable rack space

### Rugged Reliability

Proven T800 RF platform

## Operational Features

### **Easy Channel Select**

Select any one of 128 pre-programmed channels via DIP switches on the rear of the base station

### **Personality setup**

Plug in a simple dongle for repeater operation (to loop audio and key line), and remove it for line operation or equipment testing.

## **Radio Programming**

Programming is done via PGM800Win, which allows control of operational features such as Tx timers, CTCSS tones, etc

## **Third Party Products**

Third party products like repeater tone panels or phone patches are easily interfaced via a separate 15-way D-connector. These can be powered off the base-station, via a 1A (resettable fuse) supply rail.





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