Tait Radio Systems
Division

T800 Paging Systems

A beginners guide to Tait's paging offerings

1 Types of paging modulators/Transmitters

Tait currently manufactures the following paging products:

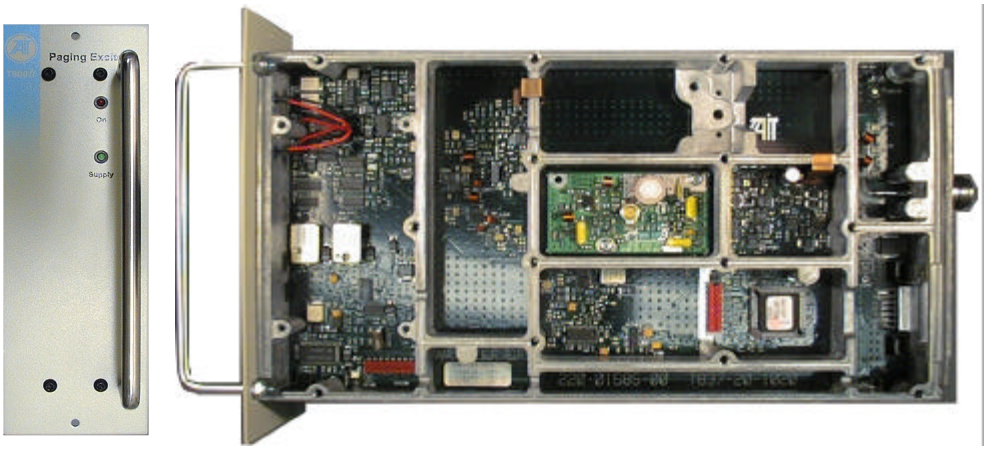
T800-30-0000 **Differential Frequency Shift Keying,** paging board suitable for use with 512 or 1200 baud Pocsag or speech

T800-30-0002 As above but with external frequency reference.

T800-32-0000 **Low Speed Paging Modulator,** suitable for use with 512, 1200 or 2400 baud Pocsag or 1600 baud FLEX.

T800-32-0002 As above but with external frequency reference.

T837-20-1020 **Low Speed Paging Exciter,** purpose built VHF exciter for use with 512, 1200 or 2400 baud Pocsag or 1600 baud FLEX. This is essentially a VHF exciter with the T800-32-0000 paging modulator built into it. It does not have voice capability.



T837-20-1021 As above but with external frequency reference.

In addition to the above, you can order directly from the factory a T8xx-xx-1010 or T8xx-xx-1012 exciter or transmitter. These come with the T800-32-000x kit already fitted, and all required modifications done. These are suitable for UHF or 800/900 MHz paging requirements where we have not developed the Paging only exciter.

2 High Stability Oscillator

For wide area paging solutions, you will require some form of external frequency reference. The T801-20-0000 is a 10MHz OCXO reference with .001ppm stability and manually adjustable offsets up to 5ppm suitable for use with VHF wide area paging networks.

It uses a single slot in a standard 5U T800 rack frame. The T800-28-0000 is a rack frame specifically designed for paging transmitters and includes slots for the T801-20-0000 reference, a Paging exciter and Power Amplifier, a T8x5 link receiver and a Power Supply.

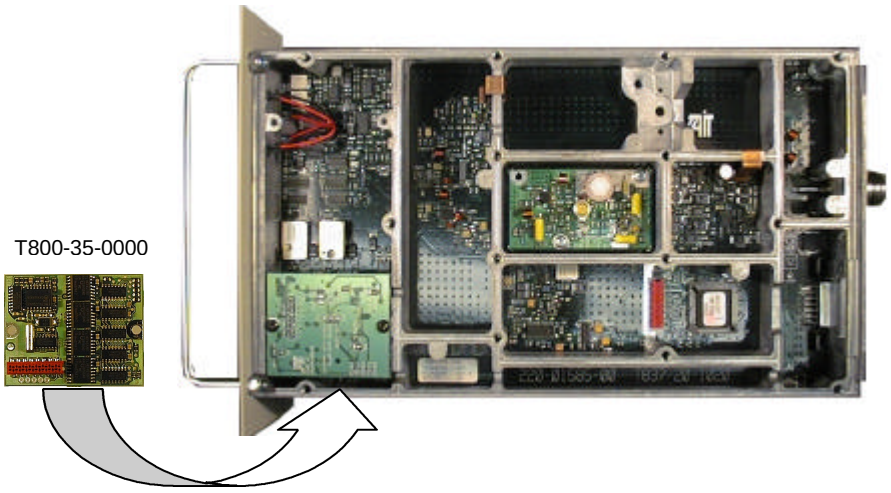
3 Modem / Delay board

The T800-37-0000 is used for two reasons:

1. To add a digital delay to the paging signal. This is used to compensate for the propagation delay for outlying paging transmitters on a wide area paging network.
2. To decode the modem tones used on an analogue link from the paging encoder to the remote paging transmitter.

The delay is adjustable from 0 – 5 msec in 3.35 µsec (1 km) steps.

The asynchronous modem is compatible with V.23 or Bell 202 modem standards and either 512 or 1200 bps rates.

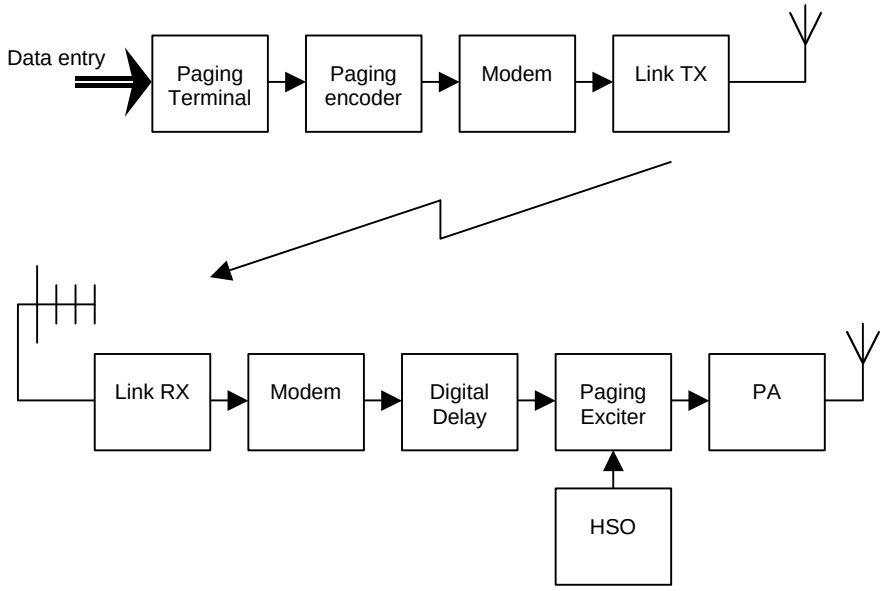


The T800-37-0000 fits inside of a T837-20-102x paging exciter. Installation is as simple as connecting the supplied ribbon cable to the paging exciter and selecting the required delay and data polarity using solder links.

The T800-37-0000 is not fitted into the link transmitter; a separate modem is needed to convert the paging encoder data to V.23 or Bell 202 tones.

4 Typical Wide Area Paging options

Tait only manufactures equipment used between the paging encoder and the paging receiver. We do not manufacture encoders or receivers, as this is an already developed market with many manufactures providing cheep and reliable products. At the encoder end, you would need something like a Zetron Model 15 Encoder, which has a RS232 output. For wide area paging you need to connect this to a V.23 or Bell 202 modem before connecting it to your UHF link transmitter. We can supply a Slimline T800 for this purpose.



At the remote end, a T855 receiver is used to receive the signal from the central transmitter. This is then decoded by the T800-37-0000 modem board, which also adds the required amount of delay to the signal. The T801-20-0000 is used to generate the reference frequency, with the required offset. The T837-20-1021 then takes all of this to make the paging signal, which is fed to the PA and antenna equipment. And with any luck the subscriber has their pager turned on and receives the message.