TB8100 Base Station - Power Save Upgrade

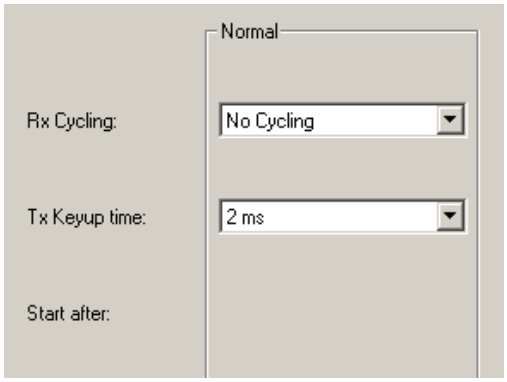
Introduction

With the Power Save software license (TBAS030), the TB8100 base station offers advanced software control to dramatically reduce the power consumption of the entire base station.

The power usage efficiencies of the Power Save upgrade make it ideal for battery and solar powered sites.

Standard Power Save

The standard TB8100 base station gives you one level of power save when you select a transmit keyup time and a receiver cycling time in normal mode. This can reduce current consumption by up to 4W.



Receiver cycling can provide additional power saving by turning the receiver off and then on again for a brief period to check if there is a signal. Receiver cycling time is selectable with 0, 5, 10, or 20 mS options.

Transmit keyup is selectable at 2, 5, and 20mS.

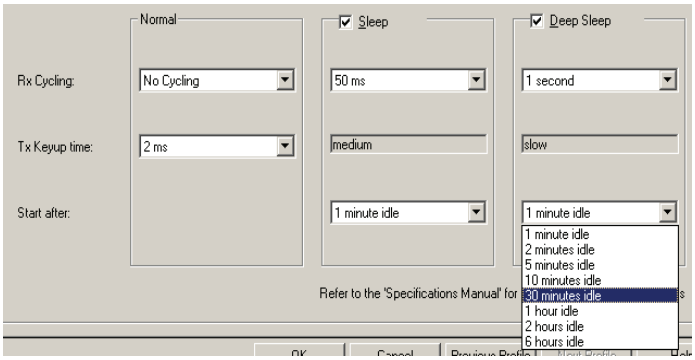
Power Save Upgrade

An optional upgrade, the Power Save software license provides all the TB8100's power save capabilities.

The Power Save upgrade allows you to use Sleep and Deep Sleep modes and determine how the base station makes the transitions into these.

In Sleep mode, the receiver cycling time is extended to 200mS. The PA is set to idle, both the exciter and receiver synthesizers are rested, and the PMU is in hysteresis mode.

Sleep mode can reduce current consumption by up to 7.5W.



In Deep Sleep mode, the receiver cycling time can be as slow as one second. The TB8100 switches off the PMU DC-DC converter and runs using the standby power supply module. Because the highly efficient standby supply provides 10W and only powers the reciter, power savings are dramatic.

Deep sleep mode can reduce current consumption by up to 11W.

With the Power Save software license, you can also specify how long the base station runs in a mode before making the transition to the next mode. This enables you to switch more circuitry off during quiet times and to have a quicker response when there is more traffic.

For instance, the base station can go into sleep mode after one minute without activity, and into deep sleep after two hours of inactivity.

Requirements

Power Save is available for 5W, 50W and 100W base stations. For PMU systems, there can be only one base station in the subrack. Dual base stations cannot run Power Save unless they are 12VDC PA-only systems.

The TBA2010 Power Save Control Panel is designed for use with the Power Save software license. It has only one LED and most of its circuitry can be switched off, saving even more power.

Power Save operates on AC/DC and DC-only systems. Power Save should not be used with an AC-only system.

Software Licensing

The TB8100 has a range of powerful capabilities, but some of them are only available with a license. Tait's software licensing scheme means that you can select and pay for those features that your network will use.

You can either order a base station with the features you need already licensed, or obtain license keys later on.

A license key is an encrypted code that only works on a single reciter. A key is required for each reciter in the network.