

TempTrak Commander Base Station Unit Product Description (4/26/00)

The TempTrak Commander Base Station Unit is a transceiver designed to collect temperature data in an industrial environment. The Commander certification will be held by:

KatchAll Technology Group
5800 Creek Road
Cincinnati, Ohio 45242
(513) 793-5366
TIN 31-1037180
Contact: Jack Kennamer

The party responsible for the design, documentation and manufacturing is:

Critical Link, LLC
404 Oak Street
Syracuse, NY 13203
(315) 425-4045
TIN 16-1534393
Contact: John Fayos

The Commander consists of an RF circuit board and a Control circuit board contained within a plastic domed housing. The Control board provides control signals to the RF board to facilitate transmit and receive functions and sends data to the host system via a wired Ethernet connection. The RF board uses permanently attached wires for both the transmit and receive antennas. All circuitry is contained within the plastic housing and will not normally be accessible to the user.

The Commander is a two channel transceiver operating at 906.0 MHz and 916.55 MHz. An ASK modulation scheme is used with only one channel active at any given time. Maximum transmission length is 99.8 ms with a maximum duty cycle of 61.4% in a 100ms period.

All timing is derived from the following:

- Control board timing for transceiver control and data collection is derived from 3.6864 MHz and 20 MHz oscillators.
- Receive channel 1 timing is derived from a 7.0041 MHz oscillator.
- Receive channel 2 timing is derived from a 7.1244 MHz oscillator.
- Transmit channel 1 timing is derived from a 906.0 MHz oscillator.
- Transmit channel 2 timing is derived from a 916.55 MHz oscillator.

The Commander operates from a wall transformer included with the test unit.

The unit for FCC verification and certification contains a special set of software to facilitate testing. On the end of the unit locate the black pushbutton switch and row of four LED's. The right most LED will be active when power is on.

On the inside of the unit locate the four LED's at the domed end of the control board labeled D1 – D4. Depressing the pushbutton should cycle through the various operating modes. These operating modes are:

D1 solid:	Channel 1 receive mode
D2 solid:	Channel 2 receive mode
D3 solid:	Channel 1 transmits a data packet every 1 second.
D4 solid:	Channel 2 transmits a data packet every 1 second.