Operating instructions / User manual
For Wireless Sensor version 4.8

Revision 1.40

March 24, 2009

File name: OPERATING INSTRUCTIONS_USERMANUAL TAG 4.8.DOC
Last saved date: March 24, 2009

Revision Control

Author Name	Description	Revision	Date
Yaron Kaufmann	Initial version	1.00	January 7, 2008
Yaron Kaufmann	Updates	1.30	December 14, 2008
Yaron Kaufmann	Added implementation paragraph	1.40	March 24, 2009

Table of Content

Table of Figures

1 Wireless Sensor implementation

The wireless sensor is a simple wireless device that collects environmental parameters of temperature and relative humidity. Temperature and relative humidity samples are stored in an on board non volatile memory. Once the wireless sensors detect a compatible wireless network, it connects to the network, downloads the measurements stored, and while connected sends measurements taken every predetermined interval. The sensors use a very low duty cycle protocol to achieve very low power consumption. The sensor is implemented using a microcontroller, RF transceiver and a non volatile memory.
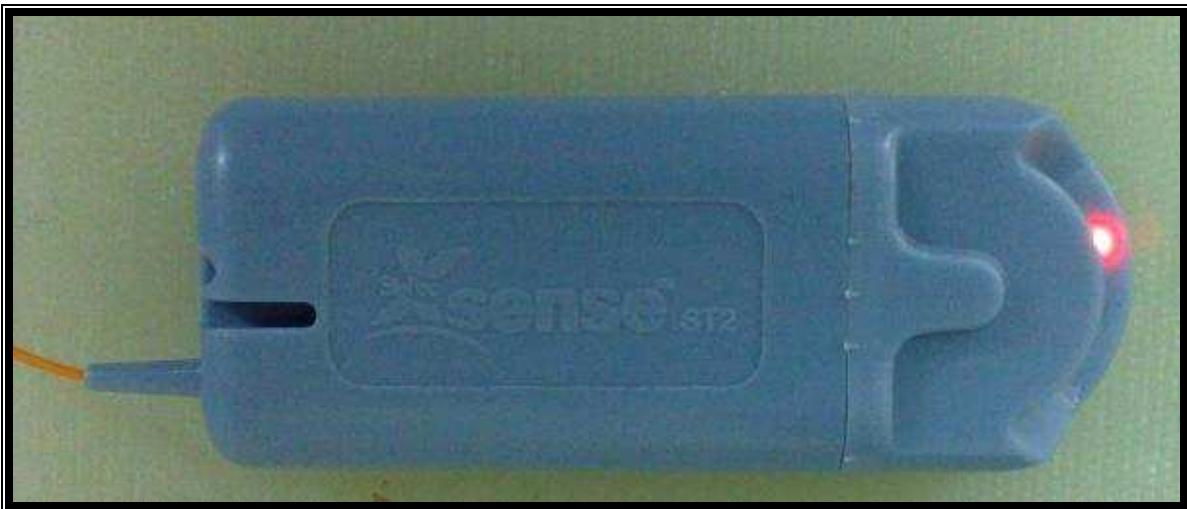
2 Wireless Sensor operating instructions

Figure 1 - Wireless Sensor

2.1 Wireless Sensor indicator

The Wireless Sensor has one LED indicator. On power up or reset the LED will blink. When the Wireless Sensor is connected to a network the LED will give a short blink once every 15.6 seconds. When the Wireless Sensor is in search mode (searching for a network) the led blinks at a rate of 2 blinks per 10 seconds.

2.2 Wireless Sensor power up behavior

- Wireless Sensor self test takes around 2 seconds, while there is no led activity.
- Several fast blinks to show the battery level: The LED will blink one time for any voltage level below 2.5V (The Wireless Sensor is operational down to 2.2V).
- 20 short blinks, once per second to attract the Wireless Sensor operator to the positive activation of the Wireless Sensor.
- During normal operation, the led will blink for a short time once every 15.6 Seconds to show that the Wireless Sensor is connected to a network.

- Wireless Sensor in search mod blinks twice every 10 seconds

This device complies with Part 15 of the FCC Rules. Operation is
subject to the following two conditions: (1) this device may not cause
harmful interference, and (2) this device must accept any interference
received, including interference that may cause undesired operation
Changes or modifications not expressly approved by the party responsible for compliance
could void the user's authority to operate the equipment