



AT-330 Asset Tag

Introduction

The Newbury AT-330 asset tag, is a battery powered, 802.11b/g, Wi-Fi compatible, sensor platform that is capable of being networked in a WLAN environment. The AT-330 can receive and send Wi-Fi compatible messages at user defined intervals. The Wi-Fi sensor platform serves as a means to become an active RFID tag where the RFID platform can send messages with unique ID's and/or data encoded from several sensors which are part of the tag. The AT-330 seamlessly becomes part of the users wireless network infrastructure in that the tag becomes just another user on the WLAN network. The AT-330 and its inherent sensors can be configured to the application best suited by the user.

Product Specification

The following table summarizes the allowed performance characteristics of the Newbury AT-330 asset tag:

Parameter	Description
Frequency Band	2.412 to 2.462 GHz
Connectivity Protocol	DSSS 802.11 b/g
Modulation	CCK, BPSK, QPSK, OFDM
Transmit Power	18 dBm
Input Power	3.6 V Lithium Battery
Message Length	Variable
Transmission Interval	Variable
Duty Cycle	25% Maximum

Hardware Description

Integrated WiFi Module:

- Low power 802.11 b/g system module with support for WEP/WPA/WPA2 encryption

Integrated Sensors:

- Onboard Temperature Sensor
- Motion Detection
- Magnetic Detachment Detection

Input/Output:

- 2 LEDs
- 2 Push-button switches

Power:

- 1000mAh Thionyl Chloride Lithium Battery
- 6 month to 2 year battery life (depending upon configuration)

Operating Conditions

AT-330 Operating conditions specifications:

Temperature:

- Operating temperatures: -20C to +70C
- Storage temperatures: -40C to +70C

Humidity:

- Operating: 10% to 95% non-condensing

Power:

- Input voltage range: 2.7v to 3.7v
- Maximum continuous current: 10mA
- Rated 1 Sec Pulse: 20mA

Additional Documentation

For more details on how to use the AT-330 Asset Tag with Newbury Active Asset, refer to the Newbury Active Asset User's Guide.

Notice To User: Newbury AT-330 asset tag is to be configured by Professional Installers only who have received training on the proper configuration that can and will affect the tags operation and performance.

Contacting Newbury Networks

For most current issue of this document, complete regulatory guide and more information on Newbury's products and services, please contact your local Newbury certified channel partner or a Newbury Networks representative at 617-867-7007 or via email at info@newburynetworks.com.

Battery Installation

The AT-330 battery included with the AT-330 asset tag must be installed prior to tag operation. Remove the rear battery door using the raised thumb grips on the battery door, and place the included battery (label facing up) inside the battery compartment. Close the battery door, by pressing down and forward with the thumb grips. See the illustration below:



Product Safety

CSA 60950-1, 2nd Ed.

UL 60950-1, 2nd Ed.

IEC 60950-1: 2005 (2nd Edition)

EN 60950-1: 2006 (2nd Edition)+ A11 (2009)

Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Operating this product in the U.S.A. is firmware-limited to channels 1 through 11.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for

satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statement

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

- 1) this device may not cause interference and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device

IMPORTANT NOTE:

IC Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with IC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

以下警語適用台灣地區 (For Taiwan)

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

CE Mark Compliance:

European Council Directives 1999/5EC (R&TTE), 2004/108/EC (EMC), 2006/95EC (LVD)
Environmental Directives 2002/95/EC, 2006/122/EC and 2006/66/EC

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE FOLLOWING INSTRUCTIONS

Battery Disposal Instructions: Different to the policy of each country. Normally, it is not allowed to throw away.

- Proper Shipping Name: Used Lithium Batteries
- UN Number: UN3090
- Hazard Classification: Class 9(Miscellaneous)
- Packing Group : II
- Labels Required: Miscellaneous Hazardous Waste
- Disposal Code: D003
- Other: All lithium thionyl chloride batteries should be disposed of by a proper disposal facility