

ADAM-2051Z

Wireless Sensor Network Data Acquisition Modules

Overview

ADAM-2000 series is the wireless solution of the ADAM family of products and integrates the IEEE802.15.4 standard, I/O and Sensor technologies. A feature of the ADAM-2000 series is low power consumption, reliability and integration with I/O.



Certification

The ADAM-2051Z developed by Advantech Co., Ltd. has passed the CE, FCC (R&TTE), NCC and SRRC test for environmental specifications. For more details see the User Manual.

Packing List

Before you begin installing your module, please make sure that the following materials have been shipped:

- 1 x ADAM-2051Z
- 1 x DIN-rail mounting bracket (attached)
- 1 x ADAM-2051Z Startup Manual
- 1 x Panel mounting bracket

If any of these items are missing/damaged, contact your distributor or sales representative immediately.

Notes

For more information on this and other Advantech products, please visit our websites at:

<http://www.advantech.com>

<http://www.advantech.com/eAutomation>

For technical support and service:

<http://www.advantech.com.tw/eservice>

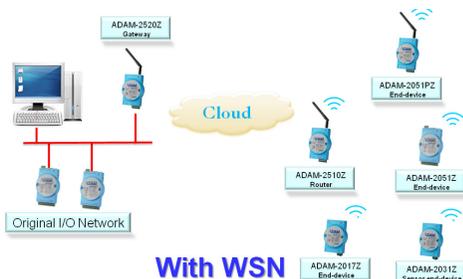
This startup manual is for the ADAM-2051Z

Part No: 2003D05100

1st Edition

December 2011

Network Overview

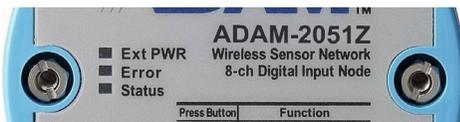


Hardware Installation

Coordinator

In a WPAN, a coordinator to collect and translate data from end devices to host PC.

1. Connect the Type B end of the USB cable to the ADAM-2520Z and the other end to the PC.
2. Turn the power on.
3. All LEDs turn on for 0.5 second then turn off.
4. Status LED turns on, **Error LED** blinks. If an error LED blinks, refer to the Troubleshooting section in the User Manual.
5. Level Index indicates Pair ID 1.
6. Error LED turns off when it hosts a PAN.



Router/End Devices

An end device with embedded sensors I/O measure the temperature, humidity, lux physical signals etc.

1. Install battery and/or external power.
2. Press the function button  3 times to join the network. Once the LED's turn off the hardware installation is complete and now software configuration can begin.

Note: For more details reference the user manual.

Software Configuration

Note: Before installing ADAM.NET Utility, you need to install the .NET Framework 1.1 or later.

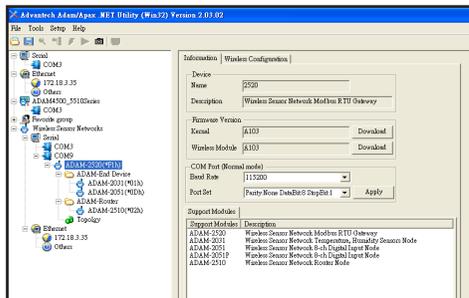
1. Install the ADAM.Net Utility from the included CD or from the Advantech Website and follow the on-screen instructions.
2. Launch the ADAM.Net Utility from the desktop shortcut icon.

Configure the PAN ID and RF Channel

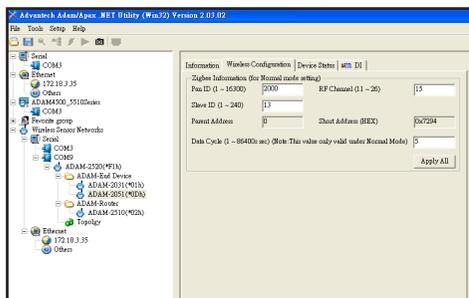
1. Click the COM1 in the Wireless Sensor Networks category then click right button to select the “Search” function. The ADAM.Net Utility is going to search the gateways of ADAM-2000 series.

Note: The COM port number is assigned by the PC.

2. The ADAM-2520Z will be listed in the tree view with model name. Click on the ADAM-2520Z, you can find the parameters.



3. Click on the ADAM-2520Z, you can find the parameters of ADAM-2520Z in the Status Display Area and it will find the end node in configuration mode.



Configuration Parameters

- Channel: 11~26
 - PAN ID: 1~16300
 - Slave ID: 1~240
 - Transmission Interval (Second): 1~86400
4. Once configured move the Mode Switch to the normal position.(Refer to overview, bottom left image).

Installation Flowchart

