



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# ADAM-2051Z

# ADAM-2051PZ

## Wireless Sensor Network 8-ch Digital Input Node

## Wireless Sensor Network 8-ch Digital Input Node with Power Amplifier



ADAM-2051Z



### Features

- IEEE 802.15.4 Wireless Standard
- Supports Star/Tree/Mesh Network Topologies
- Modbus Communication Protocol
- Low Power Consumption
- LED Indicators
- Event Triggering

### Specifications

#### Digital Input

- **Channels** 8
  - **Input Resistance** 10 K $\Omega$
  - **Input Level**
    - Dry contact: Logic level 0: Close to GND  
Logic level 1: Open
    - Wet contact: Logic level 0: 0-0.8 V max  
Logic level 1: 2.0 ~ 5.0 V
- (Note: The Digital Input Level 0 and 1 status can be inverted)

### Ordering Information

- **ADAM-2051Z\*** Wireless 8-ch Digital Input Node



ADAM-2051PZ



### Features

- IEEE 802.15.4 Wireless Standard
- Supports Star/Tree/Mesh Network Topologies
- Modbus Communication Protocol
- LED Indicators
- Event Triggering

### Specifications

#### Digital Input

- **Channels** 8
  - **Input Resistance** 10 K $\Omega$
  - **Input Level**
    - Dry contact: Logic level 0: Close to GND  
Logic level 1: Open
    - Wet contact: Logic level 0: 0-0.8 V max  
Logic level 1: 2.0 ~ 5.0 V
- (Note: The Digital Input Level 0 and 1 status can be inverted)

### Ordering Information

- **ADAM-2051PZ\*** Wireless 8-ch Digital Input Node with Power Amplifier

## Common Specifications

### Wireless Communication

- **IEEE Standard** IEEE 802.15.4
- **Modulation Type** DSSS (OQPSK)
- **Frequency Band** ISM 2.4 GHz  
(2.4 GHz ~ 2.4835 GHz)
- **Channels** 11 - 26
- **RF Data Rate** 250 Kbps
- **Transmit Power Typ.** 3  $\pm$  1 dBm (ADAM-2051Z)  
19  $\pm$  1 dBm (ADAM-2051PZ)
- **Receiver Sensitivity** -97 dBm
- **Topologies** Star / Tree / Mesh
- **Outdoor Range** 110 m with line of sight (ADAM-2051Z)  
1000 m with line of sight (ADAM-2051PZ)
- **Function** End Device

### General

- **Connectors** 1 x plug-in terminal block (#14 ~ 22 AWG)
- **Power Input** Unregulated 10 ~ 30 V<sub>DC</sub>
- **Battery Input** 2 x AA Alkaline
- **Power Consumption** 0.3 W @ 24 V<sub>DC</sub>  
(ADAM-2051Z/PZ) Battery AA \* 2  
380 uW @ 3 V<sub>DC</sub> (1 minute Tx Interval)  
220 uW @ 3 V<sub>DC</sub> (2 minute Tx Interval)  
130 uW @ 3 V<sub>DC</sub> (5 minute Tx Interval)

### Environment

- **Operating Temperature**
  - External Power -20°C ~ 70°C (-4°F ~ 157.9°F)
  - Battery Power 0°C ~ 50°C (32°F ~ 122°F)
- **Storage Temperature** -20°C ~ 70°C (-4°F ~ 157.9°F)
- **Operating Humidity** 20~95% RH
- **Storage Humidity** 0~95% RH

\*If want to operate in a wider temperature (-40°C~ 85°C (-4°F ~ 157.9°F) ), contact our sales team.