

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 Ω
 - **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



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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_{DC}
- **Battery Input** 2 x AA Alkaline
- **Power Consumption** 0.3 W @ 24 V_{DC}
(ADAM-2051Z/PZ) Battery AA * 2
380 μ W @ 3 V_{DC} (1 minute Tx Interval)
220 μ W @ 3 V_{DC} (2 minute Tx Interval)
130 μ W @ 3 V_{DC} (5 minute Tx Interval)

Environment

- **Operating Temperature**
 - External Power -20 $^{\circ}$ C ~ 70 $^{\circ}$ C (-4 $^{\circ}$ F ~ 157.9 $^{\circ}$ F)
 - Battery Power 0 $^{\circ}$ C ~ 50 $^{\circ}$ C (32 $^{\circ}$ F ~ 122 $^{\circ}$ F)
- **Storage Temperature** -20 $^{\circ}$ C ~ 70 $^{\circ}$ C (-4 $^{\circ}$ F ~ 157.9 $^{\circ}$ F)
- **Operating Humidity** 20~95% RH
- **Storage Humidity** 0~95% RH

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