

Модули удаленного ввода-вывода серии ADAM-2000

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

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ADAM-2510Z

ADAM-2520Z

Wireless Router

Wireless Modbus RTU Gateway



ADAM-2510Z



Features

- Easy maintenance and field installation
- Low duty wireless communication
- Smart and simple indicator design
- Extends network range and coverage

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. 19 ± 1 dBm
- **Receiver Sensitivity** -97 dBm
- **Topology** Star / Tree / Mesh
- **Outdoor Range** 1000 m with line of sight (with 2 dBi Antenna)
- **Function** Router

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** 0.8 W @ 24 V_{DC}
0.3 W @ 3 V_{DC} (Battery AA * 2)

Common Specifications

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** -40°C ~ 85°C (-40°F ~ 184°F)
- **Operating Humidity** 20~95% RH
- **Storage Humidity** 0~95% RH

Ordering Information

- **ADAM-2510Z** Wireless Router



ADAM-2520Z



Features

- 2.4 GHz IEEE 802.15.4 compliant RF
- Provides RS-422/485 and USB interfaces
- Multiple power input design

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. 19 ± 1 dBm
- **Receiver Sensitivity** -97 dBm
- **Topology** Star / Tree / Mesh
- **Outdoor Range** 1000 m with line of sight (with 2 dBi Antenna)
- **Network Capacity** 32 nodes (Routers & End Devices)*
*Based on user's configuration

Range Extenders

- **Range Extenders** Maximum 5 Hops

- **Function** Coordinator

General

- **Connectors** 1 x plug-in terminal block (#14 ~ 22 AWG)
1x USB-type A connector (type A to B cable provided)
- **Protocol** Modbus RTU
- **Power Input** Unregulated 10 ~ 30 V_{DC}
- **Battery Input** 2 x AA Alkaline
- **Power Consumption** 0.8 W @ 24 V_{DC}
0.5 W @ 5 V_{DC} (USB)
0.3 W @ 3 V_{DC} (Battery AA * 2)

Common Specifications

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** -40°C ~ 85°C (-40°F ~ 184°F)
- **Operating Humidity** 20~95% RH
- **Storage Humidity** 0~95% RH

Ordering Information

- **ADAM-2520Z** Wireless Modbus RTU Gateway

ADAM-2031Z

ADAM-2017PZ

Wireless Temperature & Humidity Sensor Node

Wireless 6-ch Analog Input Node with Power Amplifier



ADAM-2031Z



Features

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

Specifications

Temperature Sensor Input

- **Operating Range** -20°C ~ 70°C (-4°F ~ 157.9°F)
- **Resolution** 0.02°C (0.04°F)
- **Accuracy** ±2.0°C
(Battery Mode) ±1.0°C @ 25~40°C
- **Response Rate** ±1°C/min.
- **Long Term Drift** < 0.04°C/Year (0.07°F/Year)

Humidity Sensor Input

- **Operating Range** 0 ~ 100% RH
- **Resolution** 0.15% RH
- **Accuracy** ±8.0% RH
(Battery Mode) ±6.0% RH @ 40~60% RH
- **Response Time** 8 seconds (Achieving 63% of a step function)
- **Long Term Drift** 0.5% RH/Year

Ordering Information

- **ADAM-2031Z** Wireless Temperature & Humidity Sensor Node



ADAM-2017PZ



Features

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

Specifications

Analog Input

- **Channels** 6 Non-Isolation (Differential)
- **Input Max Voltage** +/-15V
- **Common Mode Volts** 10 V_{DC}
- **Input Impedance** >10 MΩ (Voltage), 120Ω (Current)
- **Input Type** mV, V, mA
- **Input Range** ±150mV, ±500mV, ±1V, ±5V, ±10V.
±20mA, 0~20mA, 4~20 mA
- **Accuracy** Voltage: +/-0.1% or better (Current) at 25°C
Current: +/-0.2% or better (Current) at 25°C
- **Span Drift** ±25 ppm/°C
- **Zero Drift** ±6 μV/°C
- **Resolution** 16-bit
- **Sampling Rate** 12 samples/second (total)
- **CMR @ 50/60 Hz** 100 dB
- **NMR @ 50/60 Hz** 65 dB

Ordering Information

- **ADAM-2017PZ** Wireless 6-ch Analog 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** 3 ± 1 dBm (ADAM-2031Z)
15 ± 1dBm (ADAM-2017PZ)
- **Receiver Sensitivity** -97 dBm
- **Topologies** Star / Tree / Mesh
- **Outdoor Range** 110 m with line of sight (ADAM-2031Z)
1000 m with line of sight (ADAM-2017PZ)
- **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}
Battery AA * 2
420 uW @ 3 V_{DC} (1 minute Tx Interval)
240 uW @ 3 V_{DC} (2 minute Tx Interval)
150 uW @ 3 V_{DC} (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** -40°C ~ 85°C (-40°F ~ 184°F)
- **Operating Humidity** 20~95% RH
- **Storage Humidity** 0~95% RH

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



ADAM-2051PZ



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

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

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