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.

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ADAM-2031Z
ADAM-2017PZ
ADAM-2051PZ

Wireless Temperature & Humidity Sensor Node
Wireless 6-ch Analog Input Node with Power Amplifier
Wireless Sensor Network 8-ch Digital 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

General

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)

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 at 25°C Current: +/-0.2% or better 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

General

Power Consumption	0.5 W @ 24 V_{DC} (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)

Ordering Information

ADAM-2017PZ	Wireless 6-ch Analog Input Node with Power Amplifier

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 KΩ
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)

General

Power Consumption	0.3 W @ 24 V_{DC} (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)

Ordering Information

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

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 ± 1 dBm (ADAM-2031Z, ADAM-2051Z) 15 ± 1dBm (ADAM-2017PZ) 19 ± 1 dBm (ADAM-2051PZ)
Receiver Sensitivity	-97 dBm
Topology	Star / Tree / Mesh
Outdoor Range	110 m with line of sight (ADAM-2031Z, ADAM-2051Z) 1000 m with line of sight (ADAM-2017PZ, 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

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

Last updated : 20-Sep-2016