

# ADAM-2031Z

# ADAM-2632Z

## Wireless Temperature & Humidity Sensor Node

## Wireless Temperature & Humidity & CO2 Sensor Node

NEW



ADAM-2031Z

R&TE SRRC FCC CE RoHS COMPLIANT 2009/95/EC

### Specifications

#### Temperature Sensor Input

- Operating Range -20°C ~ 70°C (-4°F ~ 157.9°F)
- Resolution 0.02°C (0.04°F)
- Accuracy ±1.0°C (33.8°F)(±0.5°C @ 0 ~ +35°C)
- Repeatability ±0.1°C (0.4°F)
- 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 ±3.0% RH
- Repeatability ±0.1% 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

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### Specifications

#### Temperature Sensor Input

- Operating Range -10°C ~ 50°C (14°F ~ 122°F)
- Resolution 0.02°C (0.04°F)
- Accuracy ±0.3°C
- Response Time 5 ~ 30s
- Long Term Drift < 0.04°C/yr

#### Humidity Sensor Input

- Operating Range 0 ~ 100% RH
- Resolution 0.15% RH
- Accuracy ±3.0% RH
- Repeatability ±0.1% RH
- Response Time 8 seconds (Achieving 63% of a step function)
- Long Term Drift 0.5% RH/Year

#### CO2 Sensor Input

- Resolution 12 Bit (CC2530 ADC, ENOB)
- Conversion / Response Time 132µs (CC2530 ADC) / 1.5 ~ 2.5 min
- Operating Range 350 ~ 10,000ppm of CO2
- Operating Cond. -10°C ~ +50°C, 5 ~ 95%RH

### Ordering Information

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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 ADAM-2031Z: Typ. 3 ± 1 dBm  
ADAM-2632Z: Typ. 19 ± 1 dBm
- Receiver Sensitivity -97 dBm
- Topology Star / Tree / Mesh
- Outdoor Range ADAM-2031Z: 110 m  
ADAM-2632Z: 1000 m
- 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>  
Battery AA \* 2  
420 uW @ 3 V<sub>DC</sub> (1 minute Tx Interval)  
240 uW @ 3 V<sub>DC</sub> (2 minute Tx Interval)  
150 uW @ 3 V<sub>DC</sub> (5 minute Tx Interval)

#### Environment

- Operating Temperature External Power ADAM-2031Z : -20°C ~ 70°C (-4°F ~ 157.9°F)  
ADAM-2632Z : -10°C ~ 50°C (14°F ~ 122°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