

# ADAM-2031Z

# ADAM-2632Z

## Wireless Temperature & Humidity Sensor Node

## Wireless Temperature & Humidity & CO2 Sensor Node

NEW



ADAM-2031Z

R&TE SRRC FCC CE RoHS

### 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

- ADAM-2632Z Wireless Temperature & Humidity & CO2 Sensor 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: 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