



CO2-Light Transmitter via LoRaWAN

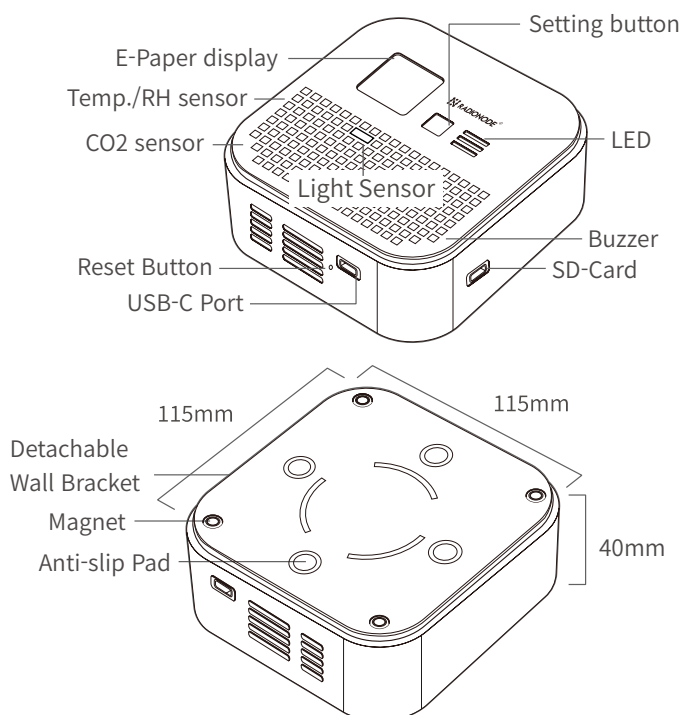
RN320-CDT

- Long Range Wireless / LoRaWAN®
- Accurate Brightness Measurement
- E-Paper Display / Loud Buzzer 97dBA
- 3 Color LED Indicator (Best, Moderate, Bad)
- Long Battery Life (17000mAh)
- MicroSD Card supported
- Easy Installation with Magnet and Wall Bracket



Radionode RN320 series is battery operated wireless environmental sensor. It is professionally designed for our valuable customer to have E-paper display, microSD card, loud buzzer, three color LED and unbelievable battery capacity. Using LoRaWAN® technology, Radionode customers can easily set up wide range sensor network in a short time. The user can intuitively check the current status of sensor using the three color LED and ePaper Display. Also, the loud buzzer is the easiest and most useful feature to quickly alert nearby users of danger. The RN320 model has a retransmission function, so it does not drop measurement samples. Plus, you can keep all your data permanently by using the built-in microSD card. This RN320 model has an embedded high accurate temperature and humidity sensor. With 17000mAh battery, RN320-CDT can be operated up to 5 years.

Hardware



Contact Information

- Do not use in humid environments or outdoors.
- Avoid moisture. Do not spill water or other liquids on the product.
- Do not place the product near heat sources. Do not place it in areas with poor ventilation.

Certificate



Contact Information

- www.radionode365.com
- master@dekist.com



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RN320-CDT Specifications

Wireless Telecommunications	<ul style="list-style-type: none"> • LoRaWAN® V1.0.3 ,OTAA/ABP ClassA • KR920/CN470/IN865/RU864/EU868/US915/AU915/ AS923 TX : 20dBm Sensitivity : -137 dBm @ 300 bps 		
Internal sensor	CH1: CO2 (ppm) CH2: Light (lx) CH3: Temp (C/F) CH4: RH (%)		
Supported Range	<ul style="list-style-type: none"> • CO2 ¹⁾ : 400 ~ 5,000 ppm • Light : 0 ~ 140,000Lx • TEMP : -40°C ~ 125°C(-40°F ~ 257°F) • RH : 0 ~ 100% RH 		
Resolution	<ul style="list-style-type: none"> • CO2: ±(50.0 ppm + 5.0 % of reading) • Light : 0.0042 lx/step ²⁾ • TEMP : 0~75°C (32°F~ 167°F) ±0.2°C • RH : 30~70%RH(±1.8% RH@ 25 °C) 		
Operating Condition	-10 ~ 60°C / 0 ~ 95% (Non condensing)		
Material	PC, PS		
Buzzer	Min.80dB, at 4.0KHz, L 6.2 mm x Φ 12.8mm		
Display	<ul style="list-style-type: none"> • E-ink display, 200x200 Pixel 1.54 Inch • Operating condition : 0~50°C (Display off is recommended below 0°C) 		
Display Mode	<ul style="list-style-type: none"> • A mode : all 4 channel • B mode : CO2 • C mode : Light Sensor values are displayed in a large for easy viewing.		
External Memory	<ul style="list-style-type: none"> • Option (16GB microSD, only supports SLC and MLC options) 		
Smart LED Status	LED status	CO2 status	CO2 levels
	GREEN	GOOD	0 ~ 400
	ORANGE	Moderate	400 ~ 600
	RED	Hazardous	600 ~ 1000

1) The CO2 sensor Specified CO2 Measurement Range 400 - 5000 ppm

2) 'lx/step' is a value that indicates how many lux the illuminance value changes when changing by one step

Set Mode	<ul style="list-style-type: none"> • Normal : Confirm mode ON, Display ON • ECO Mode : Confirm mode OFF, Display ON • Display Off Mode: Confirm mode OFF, Display OFF
Battery	3.6V C Type X 2EA (17000mAh) * Power consumption per mode will be updated soon.
USB Port	Configuration Port CALIBRATION is processed with this port.
Button	<ul style="list-style-type: none"> • Menu BUTTON • Reset button(below)
Installation Types	Magnet & Screw for wall mount (Option) Desktop bracket for Table mount (Optional accessory)
Weight	360g (with Battery)

Basic Requirements

- LoRaWAN Gateway :
Radionode LoraWAN gateway or Others

Application

- Life Science Monitoring
- Building management
- Medicine and medical goods storage sites
- Semiconductor production lines

Product Components

- RN320-CDT (1EA)
- C-Type Battery (2EA)
- Wall Bracket (1EA)
- USB C cable

LoRaWAN Payload Decoder

- github.com/radionode/RN300-Series-LoraWAN