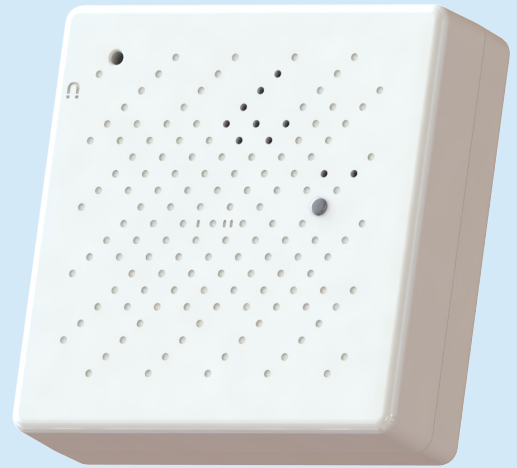




Smart Room Sensor - CO₂

LoRaWAN® connected Indoor Ambient Environment Monitoring

The **Smart Room Sensor CO₂** integrates practical functionality into a very small form factor and is an ideal solution for holistically monitoring ambient indoor environments. The device measures and reports real-time CO₂ levels, temperature, humidity and light in its surrounding environment. The sensor is optimized for long battery life and excellent wireless performance with deep indoor coverage capabilities in any home, school, office, enterprise or commercial environment. The device is fully configurable over-the-air by the user for custom applications, thresholds, trigger events and reports. The Smart Room Sensor CO₂ supports autocalibration with settable intervals. Furthermore, the CO₂ can be calibrated through the application or manually.



Features

- » User Configurable Parameters and Thresholds
- » Designed for Optimal Battery Life
- » Ambient Indoor Environment Monitoring
- » Long Battery Life
- » Wall, Ceiling or Table Mount Configurations
- » Simple Deployment
- » Sleek and Unobstructed Design

Applications

- » Temperature
- » Humidity
- » Light
- » Barometric Air Pressure
- » CO₂ Concentration

Smart Room Sensor - CO₂

LoRaWAN[®] connected Indoor Ambient Environment Monitoring

Technical and Functional System Specifications

General System Parameters

Operational Temperature	0°C to 60°C
Storage Temperature	-40°C to 60°C
Relative Humidity-Operational	5% - 95% Non-Condensing (Operational)
Ingress Protection	IP30
Size	71 x 71 x 26 mm (with mounting clip)
	71 x 71 x 23 mm (without mounting clip)
Weight (including batteries)	91g (with Battery)
Battery	2x AA LID or 2x AA Alkaline

Wireless Parameters

RF Power	15 dBm
RF Sensitivity	-137dBm
LoRa Radio	SX1261
Supported ISM Bands	All Regions Identified by LoRa Alliance
Antenna	Internal
LoRa Device Class	A

Sensing Functions

Temperature: 0-60C +/- 0.5C
Humidity: 0-100% +/- 3%
Light: 5-1000 lux
Reed Switch: On/Off
Barometer: 300 -1200 hPa +/- 1hPa
CO ₂ : 400-5000ppm +/- 30ppm

Optimized Battery Life

Operational Temperature	15-25°C
Tx Power	14 dBm

Transmission	30 Seconds		60 Seconds	
	SF 10	SF 7	SF 10	SF 7
4 packets / hour	2.6	3.0	3.3	3.8
3 packets / hour	2.8	3.1	3.6	4.0
2 packets / hour	3.0	3.2	3.8	4.2
1 packets / hour	3.2	3.3	4.2	4.4
1 packets / day	3.4	3.4	4.5	4.5

Regulatory Compliance

Safety	UL 62368-1 IEC 60529-1
Regulatory	ETSI EN 300 220-1/-2
	ETSI EN 301-489-1/-3
	FCC 15.247 FCC 15.209

Specifications subject to change without notice*.



TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN[®] IoT Gateways, Sensors, and custom applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit www.tektelic.com