Monitor Air Quality for a Safer Environment

TAOGLAS® EDGE™
CO2 Monitoring Solution

A plug-and-play solution
for lab and assembly line environments, municipalities, schools, universities, or commercial buildings to measure, monitor, and manage indoor air quality.

Cities use this to:

- Measure and analyze CO2 concentration levels.
- Monitor CO2, temperature, humidity, light sensing and more to ensure a safe indoor environment.
- Enable business intelligence using our **EDGE™ Insights** - an all-in-one sensor gateway.

Key Features

- REAL-TIME MONITORING AND ALERTING CAPABILITIES
- AIR POLLUTION AND ENVIRONMENTAL MAPPING
- FULL CAPABILITIES for cellular and Bluetooth
- INTEGRATED ON-BOARD SENSORS
- INCLUDES **EDGE Insights™** cloud management platform
- COMES PRECONFIGURED with an active cellular data plan

Your fastest time-to-market for a vast variety of IoT applications

4G Cat-1 3G 2G NB-IoT LTE Cat-M	BLE4.2 BEACONS ANDROID IOS	Integrated on-board CO2 Sensor

PRODUCT SPECIFICATIONS		EC.20B	EC.20L	EC.20N
System	Processor	ARM Cortex M7 (300MHz)		
	RAM	384 KB		
	Flash	2048 KB		
	Firmware/OS	RTOS + Applications Libraries (Real Time Performance)		
	Security	Cloud Mutual authentication, hardware root of trust, secure key storage		
Radios	Cellular	LTE US with 3G fallback	LTE EMEA with 2G fallback	Global NB-IoT and CatM
	Frequency Bands	**4G** (B2, B4, B5, B17) **3G** (B2, B5)	**4G** (B3, B8, B20) **2G** (900, 1800MHz)	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B14, B17, B18, B19, B20, B25, B26, B27, B28, B66
	Carrier acceptance	Vodafone acceptance, other carriers to follow		
	GNSS	GPS/GLONASS/Galileo/BeiDou (use external antenna)		
	Bluetooth	BLE 4.2		
On-board sensors	CO₂			
	Target Gas	Carbon dioxide (CO_2)		
	Operating principle	Non-dispersive infrared (NDIR)		
	Operating range	Range: 0-50℃ 0-85% RH (non-condensing)		
	Measurement range	400-5000 ppm: extended range up to 10000 ppm		
	Accuracy (CO_2)	±(30 ppm +3% of reading) (extended range of ±10% of reading)		
	Pressure dependence	1.6% per kPa deviation from normal pressure		
	RMS noise, Typ. (CO_2)	**Filtered:** 0.7 ppm @ 400 ppm 25℃ 1.8 ppm @ 3000 ppm 25℃	**Unfiltered:** 0.7 ppm @ 400 ppm 25℃ 20 ppm @ 3000 ppm 25℃	
	Temperature	Range: -40℃ (-104°F) to 125℃ (257°F) Accuracy: ±0.3℃ (32.5°F) (Standard), ±0.2℃ (32.3°F) (High-End Version)		
	Humidity	Range: 0 to 100%RH Accuracy: ± 3% RH (Standard), ± 1.5% RH (High-End Version)		
	Atmospheric pressure	Range: 300 … 1100 hPa Accuracy: typ. ±1 hPa		
	Light	Range: 0.045-188,000 Lux		
	Accelerometer	Range: up to ± 16g Accuracy: up to 16384 LSB/g with 16 bit resolution		
	Gyroscope	Range: up to 2000°/s Accuracy: up to 262.4 LSB/°/s with 16 bit resolution		
	Magnetometer	Range: ±1300µT (x, y-axis), ±2500µT (z-axis) Accuracy: ~0.3µT		
Expansion	External Connector	RS485, CAN, UART, GPIO, PWM, ADC, I2C, SPI		
Physical	Operating temperature	-20℃ (-4°F) to +60℃ (140°F)		
Dimensions		56.4 x 35.8 x 27.5mm		
Weight		93g		
Power		Voltage: 3.2V – 4.5V, Current 2A- 3A (CatM/NB-IoT EC.10N - 4.35V)		
Battery		1200 mAh rechargeable lithium battery Charging temperature 0℃ (32°F) to +45℃ (113°F)		
EDGE Insights™ and data plan		Includes 1-month EDGE Insights™ subscription and cellular data plan		

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For further details, contact **nasales@Taoglas.com**

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