

## **MClimate Releases Maintenance Free CO2 Display Powered By Organic Indoor Solar Cells from Epishine and LoRaWAN® 31.05.2023 Linköping, Sweden and Sofia, Bulgaria**



***MClimate in joint efforts with Epishine, a leading indoor solar cell producer, is now offering the self-powered CO2 Display that can monitor Carbon dioxide (CO2). Using a low-power NDIR sensing module provided by one of the leading manufacturers worldwide, the device can be used for any indoor space like classrooms, offices, hospitals, shops, public buildings, and many more.***

In recent years, particularly since the COVID-19 crisis, there has been a growing attention from environmental regulatory bodies on improving indoor air quality and implementing higher standards. This focus has become crucial for many companies and the general public, considering that individuals spend approximately 90% of their time indoors. Additionally scientific research has established a clear connection between elevated levels of certain pollutants and adverse health effects, especially among vulnerable populations such as the elderly, children, and individuals with chronic respiratory or cardiovascular conditions. Key indicators for measuring air quality and assessing potential health risks include carbon dioxide (CO2) concentration, along with temperature and humidity levels.

As a result, there is an increasing demand for smart devices capable of monitoring, evaluating, and managing indoor air conditions. However, the current market offers multiple solutions that rely on disposable batteries with limited usage time, requiring frequent maintenance. Recent studies predict a substantial rise in global battery demand from 185 GWh in 2020 to over 2,000 GWh by 2030. This presents an additional concern regarding greenhouse emissions and environmental damage caused by the growing demand for batteries.

The MClimate CO2 Display LoRaWAN effectively addresses all of these challenges by leveraging the LoRaWAN technology of smart devices and integrating a solar panel-powered display. This innovative solution enables precise measurement of CO2 levels, offering users essential information to ensure a healthy and comfortable indoor environment, but also prioritizes energy efficiency, aligns with green policies, and requires no maintenance.

The device is providing a complete solution using a low-power NDIR sensing module with a detection range of 400-5000ppm with ABC calibration enabled by default, reliable temperature and humidity measurement, motion detection sensor, and multiple other smart innovative technologies to achieve excellent results.

*"At MClimate, we are dedicated to smart building solutions that are sustainable, effective and easy to use, making the CO2 Display LoRaWAN a testament to our commitment," said Violeta Mitsova, Co-Founder and CCO at MClimate. "With the successful resolution of buildings connectivity issues by LoRaWAN® technology, combined with the integration of Epishine's solar cells, we developed a smart IoT device that requires no battery replacement, can survive without light for 14 days and does not need any other kind of maintenance. This empowers end users to monitor air quality and act on the displayed metrics in a timely manner and property owners offer more environmentally friendly assets."*

"Collaborating with a forward-thinking company like MClimate perfectly resonates with our overarching vision. They have recognized the significance of sustainable and pioneering advancements to facilitate optimization, ultimately resulting in enhanced building environments and increased sustainability." "Daniel Westling, VP Sales and Marketing at Epishine

By addressing the growing need for comprehensive indoor air quality management, the MClimate CO2 Display LoRaWAN promoted well-being, energy efficiency, and sustainability in old and new buildings. The device serves as an essential tool for facility managers, building owners, and individuals seeking to optimize their indoor environments.

The device is available for pre-order now on the MClimate website.

### **About MClimate**

MClimate is an IoT company that designs and develops universally compatible smart home and building automation devices with a focus on sustainability and delivering enhanced comfort, security, and energy savings. The Company's growing LoRaWAN® portfolio is aimed at helping address some of today's global challenges such as climate change and air quality by impacting consumption patterns linked to energy use, energy waste, and air and CO2 monitoring.

### **About Epishine**

Epishine is a leading developer and manufacturer of printed organic solar cells, committed to reducing global environmental impact by enabling innovative and smart technologies in meeting the demand for sustainable energy solutions. Epishine's business is based on pioneering manufacturing breakthroughs. Their first product is a unique indoor solar cell optimized for harvesting indoor light and easily integrated into small low-power electronics. For more information visit [epishine.com](http://epishine.com)

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