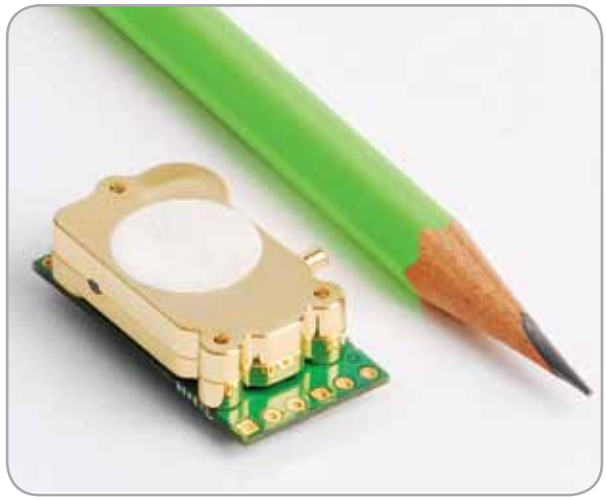
TELAIRE®

Telaire 6703 Series CO_2 Module

NDIR CO_2 Module designed for residential applications in a compact package



The Telaire® T6703 CO_2 Series is ideal for applications where CO_2 levels need to be measured to make assesment of indoor air quality.

All units are factory calibrated to measure CO_2 concentration levels up to 5000 ppm.

Features

- An affordable gas sensing solution for OEMs.
- Eliminates the need for calibration in most applications with Telaire's patented ABC Logic™software. Lifetime calibration warranty.
- A reliable sensor design based on 20 years of Engineering and manufacturing expertise.
- Flexible CO_2 sensor platform designed to interact with other microprocessor devices.
- Small compact design allowing simple product integration.

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Advanced Sensors

Automatic Background Logic, or ABC Logic, is a patented self-calibration technique that is designed to be used in applications where concentrations will drop to outside ambient conditions (400 ppm) in a 7 day period.

Full accuracy to be achieved utilizing ABC Logic. With ABC Logic enabled, the sensor will typically reach its operational accuracy after 24 hours of continuous operation. Sensor will maintain accuracy specifications with ABC Logic enabled, given that it is at least four times in 21 days exposed to a reference level of 400ppm.

Note: Applies when used in typical residential ambient air. Consult Telaire if other gases or corrosive agents are part of the application environment.

Pin Designations

Connector Pin-Out	Function/Alternate
1	TX (UART) / I2C_SDA
2	RX (UART) / I2C_SCL
3	V+
4	V- / GND
5	PWM Output / RS485 Flow Control
6	No Connect / Ground / 10k pull down to select interface

Handling and Installation

The T6703 CO_2 OEM modules are infrared gas sensors on a printed circuit board and should be treated carefully. Precautions should be taken to observe specified limits and prevent damage from electrostatic discharge or rough handling. Please refer to ANSI/ESD S20. 20-1999 for more information on preventing ESD damage and IPC 610 Rev D for more information on proper electronic assembly practices.

Calibration

Telaire does not recommend the customer recalibrate the T6703 module after installation. The sensor ABC Logic algorithm will begin after 24 hours, adjusting the sensor measurement resulting in sensor-to-sensor consistency. If immediate consistency is desired, the sensors may be single point calibrated using pre-mixed reference gas or ambient air measured by a reference sensor.

Available Models

Part Number	Sampling Method	Measurement Range
T6703	Diffusion	0-2000 ppm
T6703-5k	Diffusion	0-5000 ppm

Safety

Before installing, handling, using, or servicing this product, please consult the data sheet and application notes. The product shall be used only within power supply and electrical input and output limits as specified by the datasheet and application guide. Improper use of the product may result in product damage and property loss and/or personal injury. In use of the product, the customer has sole responsibility for designing and implementing a solution which will ensure safe operation (including review of appropriate reliability or required redundancy, mitigation of failure modes, and/or meeting appropriate standards). The customer is responsible for review of any special conditions for use including, but not limited to, environmental conditions, electrical supply, residual risk, etc). The sensor is designed for benign environments. The performance and reliability may be negatively affected in environments that contain corrosive or caustic gases including but not limited to Ammonia, Chlorine, NOx and Ozone. Telaire makes no warranty, representation or guarantee regarding the suitability of this product for any particular application, including safety critical applications. Nor does Telaire assume any liability arising out of the application or use in any product or circuit. Telaire specifically disclaims all liability without limitation consequential or incidental damages. No statuary or fitness for particular purpose shall be implied.

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www.telaire.com

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AAS-920-640B-07/2015