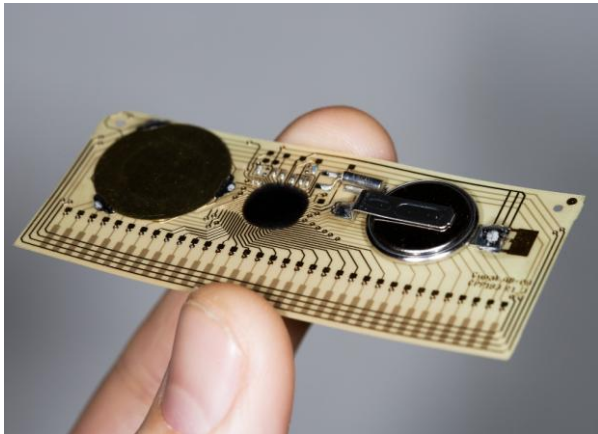


Standard solution for medication monitoring



The CEM083 is designed as a single component for inclusion in pharmaceutical packaging to create an Advanced Medication Monitor (AMM). No additional components are required for the AMM application.

The CEM083 has the same functionality as CEM082 with the addition of NFC communications and on-module antenna.

The module includes the CPK082 ASIC, a timing crystal for a real-time clock, a battery, and a buzzer for audible alerts. It contains 32 discrete sensor connections to detect, for example, when the cavity on a blister pack is opened, or a question is answered.

The CEM083 is flexible and only 2.5mm high. It can be mounted on a variety of substrates, most usually paperboard. Cypak provides a proprietary low cost adhesive to achieve reliable contact between the module and almost any material, although other standard adhesives can be used.

Low cost

As a standard module, the CEM083 is manufactured with low cost and is designed to serve a range of customers and applications. Customers benefit from the economies of scale achieved with a standard product, while having great flexibility in customizing their own product with software.

Configuration and self-test

Configuration is done by software which is programmed into the chip using the RFID capabilities of the CPK082. Customization may be done either during manufacture and/or prior to use by a pharmacist or care provider.

The module provides a self-test capability that may be used in manufacturing and in the market to ensure that it is functioning correctly.

RoHs

The CEM083 is RoHs compliant.

Applications

The CEM083 is intended for the Cypak Advanced Medication Monitor (AMM) and Medicine Report Cards.

However, the flexibility of the design and the cost advantage of using a standard component make the CEM083 suitable for use in other RFID applications such as cold chain monitoring and smart packaging of all types.

The module provides 32 configurable I/O channels for both analogue and digital sensor interfacing and a wide range of sensors can be applied. The CPK082 provides an 8-bit programmable microprocessor, 32KB of memory, and various RFID interfaces.

Low Power

The ultra-low power consumption allows long operating time. Typically a module will leave the factory in coma mode to provide a long shelf life. Once activated the module will operate normally under battery power, switching between sleep and active modes. Recorded data is preserved in non-volatile memory for up to 10 years.

Power can be extracted from the RF interface, enabling data retrieval after the battery has drained. A battery discharge function enables total drain of the lithium cell batteries prior to recycling.

Cypak Electronic Module (CEM083) – Product Brief

Availability

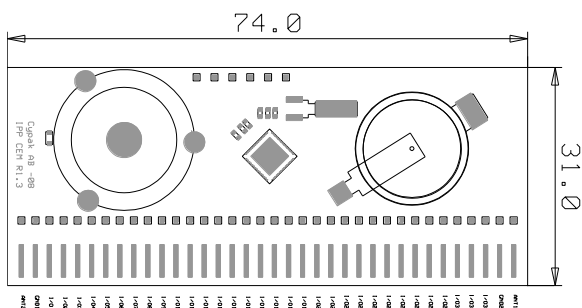
Available to customers with an appropriate agreement with Cypak. Specifications may vary according to customer requirements.

Contact

Contact sales@cypak.com for more information.

Specifications

Dimensions (w x l x h) 74.0 x 31.0 x 2.5 mm



Sensor IO's

Number of channels 32
Sensor capability Dose dispensing, questionnaires
I/O Configurability Analogue in, analogue out, digital in, digital out

Pull up, open drain configuration available

Buzzer

Piezoelectric, 500 – 4kHz

Power Consumption

Coma Mode 1uA
Sleep Mode 3uA
Active, average 4.5uA

Battery

Lithium coin cell 3V, 55mAh

AD/DA resolution

10bit/8bit