

Cypak Mobile Reader (MR081) – Product Brief

Cypak Mobile Reader

The MR081 Mobile Reader enables an Advanced Medication Monitor (AMM) to send data to a healthcare provider anytime, anywhere.

The reader is very easy to operate. There are no buttons to press and everything happens automatically. All the user needs to do is place the medication package on the reader and the data will be sent.

The mobile network

The Mobile Reader uses the GSM/GPRS mobile phone network in both USA and Europe. A telematics SIM card in the Reader establishes and manages the connection. Data is sent in either SMS, E-mail, or XML format, depending on the requirements of the healthcare provider's system.

Basic functions

When a medication pack with an AMM is placed on top of the reader, the reader beeps and downloads the information automatically over the built-in Cypak CPI interface. After downloading, the reader establishes a connection to the GSM/GPRS network and transmits the data.

The healthcare provider pre-configures the Mobile Reader to send SMS, E-mail, or XML format.

SMS

The reader sends SMS according to the SMS (Short Message Service) standard. One SMS can consist of 160 characters. With many healthcare providers already using SMS servers for reminders, this can be a solution that is easy to integrate with existing systems.

E-mail

Utilizing GPRS, the reader is able to send e-mail containing the AMM data. This option is useful for small scale trials because the incoming data can be handled by any mail system. Information can also be forwarded easily to carers or family members with an e-mail system.

XML

Larger scale automated applications usually prefer data to be submitted in the XML format.



Using all formats

The reader can send all three formats during one session. This could mean that a doctor receives an email, a carer is sent an SMS, and an XML stream is sent to the central system of the healthcare provider, hospital, or care home.

User interface

The user only needs to place the medication pack on the reader. Three LED lights give information about Reader status so the user can see that information has been transmitted correctly, or that a problem has occurred: for example, not in range of a GSM network.

The reader also has an audible alert which can be configured to work in combination with the LEDs, or in cases where the user is visually handicapped.

Life time

The reader runs on 4 AA batteries and the life time is expected to be at least 2 years in normal use. The batteries are not exchangeable by the user, but can be renewed simply when needed by a person with a minimum of training.

Automatic band selection

The reader adjusts automatically to the characteristics of the different GSM/GPRS networks in US and Europe. A user can travel widely on business or holiday with the reader.

Contact

Contact sales@cypak.com for more information.

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Configuring the reader

The Mobile Reader is normally configured by the healthcare provider or pharmacist. This is done via a contactless card connected via a standard Cypak CPI interface to a Cypak program running on a normal PC. The PC program transfers the correct information to the card and, when the card is subsequently placed on a Mobile Reader, the configuration information is transferred to the Mobile Reader.

This is a flexible approach which enables a programmed contactless card to be used by the user themselves or a health visitor to reprogram the mobile reader. This could be necessary if, for example, telephone numbers change while the mobile reader is in use.

Specifications

GSM/GPRS module	Telit quad band 850/900/1800/1900 MHz
Network operator	Telenor Telematics Subscription
Scan rate	2 seconds (polls for an IPP every 2 seconds)
Battery lifetime, estimate	2 years including 300 transmissions
Battery type	Four AA/R6 1.5V Alkaline (2500mAh)
Power consumption, idle	80uA
Power consumption, GSM active	3.3mA
Low bat signal	When battery voltage less than 5V in idle mode, measured every 100s
Low bat message	Sent to all recipients, configurable
Message counter	Increments by one for each message that is sent
GSM	Only SMS allowed, no voice
SMS	Yes – 2 recipients
GPRS	Yes
E-mail	Yes – 2 recipients (Max 32 characters in e-mail address)
XML	Yes
Audio feedback	Buzzer – 500Hz – 5kHz
Visual feedback	LEDs, Green, Yellow, Red