

Wireless M-Bus USB Adapter

Key Features

- Wireless M-Bus interface for PCs and mobile terminals via USB
- Range up to 100 m
- Communication via virtual COM port
- Wireless M-Bus according to EN13757-4:2005 standard
- OMS (Open Metering System) standard supported
- All operating modes (S, T, R) supported
- Easy switching between modes S1, S1m, S2, T1, T2, R2
- Conforms with EU R&TTE 1999/5/EC directive



Description

The AMB8465-M is based on the Wireless M-Bus radio module AMB8425-M providing a plug+play PC communications link via USB interface. The USB adapter operates in 12 channels in the 868 MHz frequency band.

The Wireless M-Bus standard (EN13757-4:2005) specifies the communication between water, gas, heat and electricity meters and concentrators. The standard comprises various operating modes (S, T and R) to meet the requirements of one-way and two-way data communication in stationary and mobile systems. By using the USB adapter AMB8465-M, PCs or mobile terminals (such as service terminals) can now easily communicate with wireless M-Bus meters, data concentrators and multi utility control systems (MUCs). The USB adapter fits perfectly as a test + service tool for installations of wireless M-Bus meters or for maintenance work.

The integrated microprocessor controls the entire data communication. Data packets are built and transmitted according to EN13757-4:2005. AMB8465-M supports all operating modes according to the Wireless M-Bus specification. The quality of the radio link can be assessed by using the measured field strength (RSSI value). A graphical user interface of the free windows application „AMBER-ACC“ allows easy configuration of the operating parameters.

Interfaces

The device is connected either via a virtual COM port or directly via USB using the corresponding software API. The USB controller (FTDI FT232R) supports USB 2.0 (full speed).

Supported operating systems

The drivers required for the virtual COM port are available for Windows, MAC and Linux at <http://www.ftdichip.com>

Scope of Application

The USB adapter is designed for automatic meter reading / smart meter reading applications enabling the easy integration of PCs, mobile terminals and service terminals into a wireless M-Bus network.

Specifications

Performance	Range*	up to 100 m (S mode)
	RF data rate	2.4 / 16.384 / 66.6 kbps (according to EN 13757-4:2005)
Radio Technology	Frequency range	863.03 - 868.95 MHz
	Channel spacing	868.03 MHz + k • 0.06 MHz k=[0.9] 868.30 MHz 868.95 MHz
	Modulation type	2-FSK
	Supported topologies	Point-to-Point, Point-to-Multipoint, Peer-to-Peer

* Range stated is calculated assuming line-of-sight. Actual range will vary based upon specific board integration, antenna selection, and environment.

Ordering Information

Item no.	Description
AMB8465-M	Wireless M-Bus USB Adapter with integrated ceramic antenna

Contact

AMBER wireless GmbH
Albin-Köbis-Straße 18
D-51147 Cologne
Tel.: +49 (0) 2203-699195-0
E-mail: info@amber-wireless.de
Internet: www.amber-wireless.de