

# Wireless 868 MHz USB Adapter

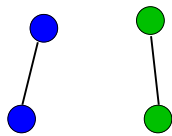
Proprietary radio data applications

## Key Features

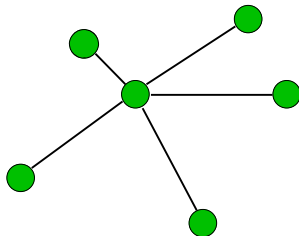
- USB version of the OEM radio module AMB8426
- Range up to 400 m
- Communication via virtual COM port
- Integrated software stack with comprehensive range of functions
- Flexible addressing and network topologies with up to 255 nodes in 255 networks
- Configurable data rates and RF channels



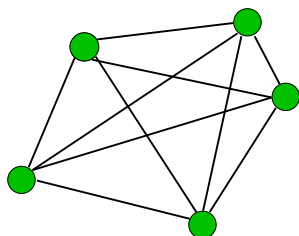
## Network Topologies



Point-to-point



Point-to-Multipoint



Peer-to-Peer

## Description

The AMB8465 is a variation of the low cost radio module AMB8426 for easy connection to the PC via the USB interface. In combination with the relevant radio technology in the end device, this solution enables quick and simple realisation of PC supported radio networks and can be used for data collection or control tasks.

The integrated radio module AMB8426 enables wireless half-duplex transmission of data. The integrated microprocessor controls data communication, handling packet and checksum formation, addressing, monitoring of channel access and resending unacknowledged packets. The host system does not have to perform any radio-specific tasks.

The USB stick offers numerous configuration possibilities and data transfer with fast channel and address switching is also supported. It is also possible to assess the quality of the radio link using the measured field strength (RSSI value). The 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, Linux and Android at <http://www.ftdichip.com> in the "VCP" area.

## Scope of Application

Data collection, monitoring, remote control and sensor networks. The device is suitable for operation in dry rooms.

## Specifications

Performance	Range*	up to 400 m
	RF data rate	up to 100 kbps
Radio Technology	Addressing	up to 255 nodes in 255 networks
	Frequency range	868.0 – 868.6 MHz
	Channel spacing	50 kHz
	Modulation type	2-FSK, MSK
	Supported topologies	Point-to-Point, Point-to-Multipoint, Peer-to-Peer
General	Temperature rage	-30 °C ... +85 °C

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

## Compatible Products

The following products can be used together with the AMB8465 USB stick for setting up networks for wireless data transmissions in the 868 MHz ISM band easily.

- **AMB8426**

## Related Products

The products listed here can be configured to be compatible on rf and interface layer so a communication with the AMB8465 is possible.

- **AMB8420**
- **AMB8626**

## Ordering Information

Item no.	Description
AMB8465	Wireless 868 MHz USB stick/adaptor with integrated antenna



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