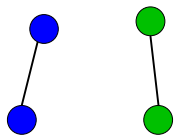AMBER
WIRELESS

Wireless 868 MHz USB Adapter
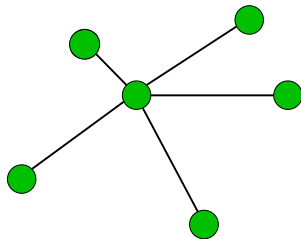Proprietary radio data applications

Key Features

- USB version of the OEM radio module AMB8425

- Range up to 100 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

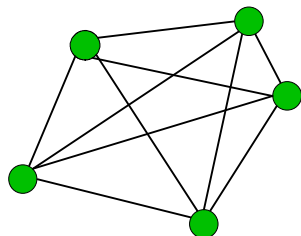- Configurable data rates and RF channels

Network Topologies

Point-to-point

Point-to-Multipoint

Peer-to-Peer

Description

The AMB8465 is a variation of the low cost radio module AMB8425 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 AMB8425 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 and Linux at http://www.ftdichip.com.

Scope of Application

Data collection, monitoring, remote control and sensor networks.

Specifications

Performance	Range*	up to 100 m
	RF data rate	up to 500 kbps
Radio Technology	Addressing	up to 255 nodes in 255 networks
	Frequency range	863.0 – 868.6 MHz
	Channel spacing	50 kHz
	Modulation type	2-FSK, MSK
	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.

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.

- **AMB8420**
- **AMB8425**
- **AMB8460**

Evaluation Kit

- **AMB8425-EV**

Ordering Information

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

Contact

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