

Wireless 868 MHz USB Stick

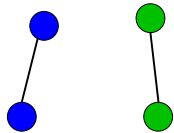
for radio data applications

Key Features

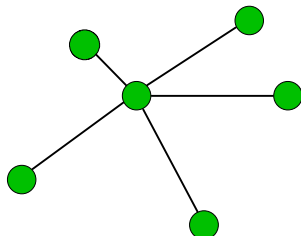
- USB version of the OEM radio module AMB8420
- Range up to 100 m
- Communication via a virtual COM port
- Integrated software stack with comprehensive range of functions
- Flexible addressing and network topologies with up to 255 nodes in 255 networks
- Configurable data rate and transfer channel



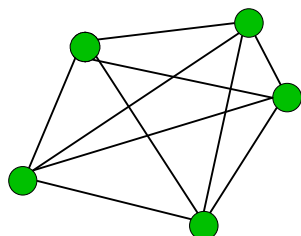
Network Topologies



Point-to-point



Point-to-Multipoint



Peer-to-Peer

Description

The AMB8460 is a variation of the low cost radio module AMB8420 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 example, for data collection or control tasks.

The integrated radio module AMB8420 enables a wireless half-duplex transmission of data. The integrated microprocessor controls all radio communication and handles packet and checks on formation, addressing, monitoring of channel access and also the resending of unacknowledged packets.

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.

The AMB4460 and AMB2560 modules are available for both the 433 MHz and 2.4 GHz frequency ranges.

Interfaces

The device is connected either via a virtual COM port or directly via USB using the corresponding software API. The USB controller (Silabs CP2102) 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 www.silabs.com

Scope of Application

Data collection, monitoring, remote control and sensor networks.


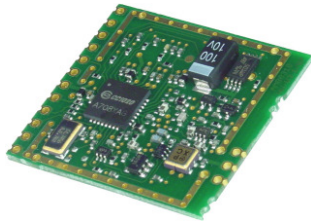

Specifications

Performance	Range*	up to 100 m
	RF data rate	up to 250 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 AMB8460 USB stick for setting up networks for wireless data transmissions in the 868 MHz ISM band easily.

 <p>AMB8420 Low cost radio module with integrated microprocessor</p>	 <p>AMB8310 RF transceiver module</p>	 <p>AMB8350 Radio data modem</p>
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Related Products

- **AMB4420** (433 MHz) / **AMB2520** (2.4 GHz) short range radio module
- **AMB4400** (433 MHz) / **AMB8400** (868 MHz) / **AMB2500** (2.4 GHz) RF transceiver without microprocessor

Evaluation Kit

- **AMB8420-EV** Evaluation Kit

Ordering Information

Item no.	Description
AMB8460	Wireless 868 MHz USB stick based on the AMB8420

Contact

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