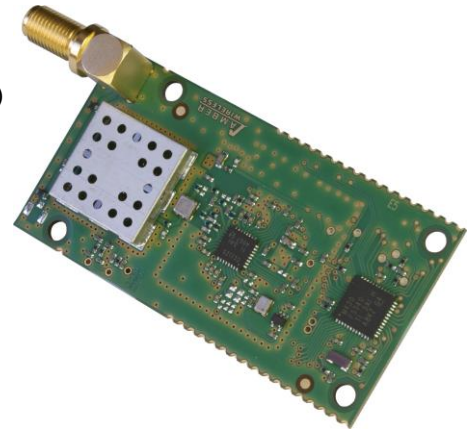


Compact Radio Module – Ultra High Performance

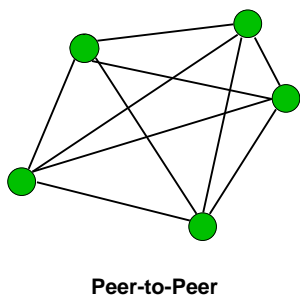
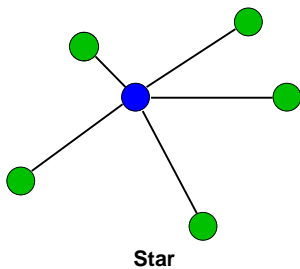
868 MHz SRD Band

Key Features

- Robust OEM radio module for the 868 MHz SRD band (Band P, 500 mW)
- Compact dimensions: 33.5 x 76 x 14.5 mm
- Integrated AMBER RF stack with extensive functions
- Flexible addressing with up to 254*254 addressable devices
- Conforms with EU RED 2014/53/EU



Network Topologies



Description

The AMB8636 is a compact and low-cost radio data transmission module for wireless half-duplex communication. The integrated microprocessor controls data communication, handling packet and checksum generation, addressing, monitoring of channel access and re-transmission of lost packets. The host system does not have to perform any radio-specific tasks.

The module can be configured in many ways and supports data transfer with fast channel and address switching. An opportunity to assess the quality of the radio link is also provided by using the measured field strength (RSSI value).

Interfaces

The AMB8636 is connected to a host system via the UART interface with bit rates of up to 115.2 kbaud. Other pins are used for data flow control and to switch between operating modes.

Using appropriate firmware, the module is also suitable for autonomously recording digital or analogue signals.

Range of Application

Data collection, monitoring, remote control and sensor networks.

Specifications

Performance	Range*	Up to 14 km
	RF data rate	Up to 50 kbps
	UART data rate	Up to 115.2 kbps
	Output power	Up to 27 dBm
	RF sensitivity	Up to -113 dBm @ 4.8 kbps
General	Power supply (VCC) Max. Voltage at any Pin	2.0 – 3.6 V - 0.3V - VCC+0.3 V
	Power consumption	- TX: typ. 500 mA @ 500 mW - RX: typ. 48 mA
	Dimensions	33.5 x 76 x 14.5 mm
	Operating temperature	-40 bis +85 °C
	Weight	Approx. 14 g
	Antenna	External antenna port (50 Ω)
	RF technology	Addressing
Frequency range		869.4 – 869.65 MHz
Channel spacing		25 kHz
Modulation		2-GFSK
Supported topologies		Star, Peer-to-Peer
Conformity	Europe	EN 300 220, EN 301 489, EN 60950, EN 62479

* Range stated assumes line-of-sight and an antenna height above ground of 6m. Actual range may vary depending on antenna choice, board integration and environment.

Ordering information

Item no.	Description
AMB8636	Radio Module 868 MHz with SMA connector



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