

Compact Radio Module – Ultra High Performance

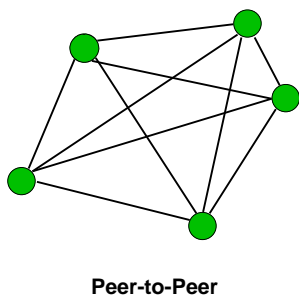
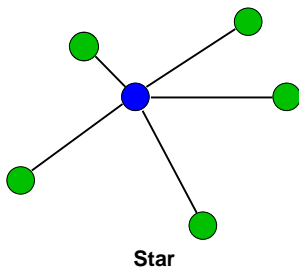
868 MHz SRD Band

Key Features

- Robust OEM radio module for the 868 MHz SRD band (g3 500 mW)
- Compact dimensions: 33,5 x 76 x 14,5 mm
- Integrated AMBER RF stack with extensive functions
- Flexible addressing with up to 255 nodes
- Conforms with EU R&TTE 1999/5/EC directive



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 20 km
	RF data rate	Up to 50 kbps (Gross)
	Interface data rate	Up to 115,2 kbps (UART)
	Output power	Up to 27 dBm
	RF sensitivity	Up to -123 dBm
General	Power supply	2,0 - 3,6 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	Up to 255 nodes
	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. 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
AMB8636-1	Radio Module 868 MHz with U.FL connector



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