Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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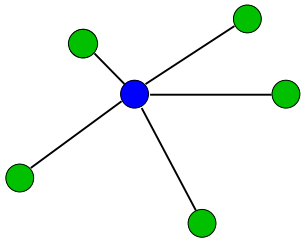
Compact Radio Module – Ultra High Performance

868 MHz SRD Band

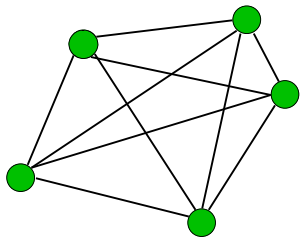
Key Features

- 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



Star



Peer-to-Peer

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	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 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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