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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 Low-Cost Radio Module

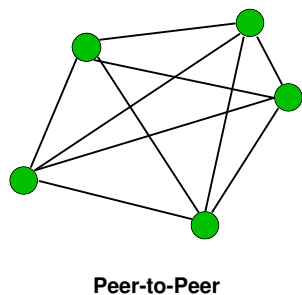
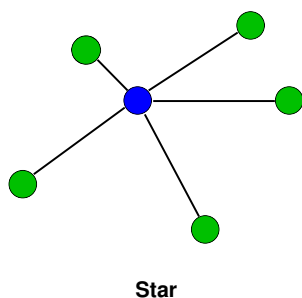
169 MHz Band

Key Features

- Low-cost OEM radio module for the 169 MHz SRD band
- Compact dimensions: 17 x 27 x 4 mm
- Supports low-power applications
- Integrated AMBER RF stack with extensive functions
- Flexible addressing with up to 255 nodes in 255 networks
- Complies with requirements of R&TTE Directive 1999/5/EC
- Tape & Reel packaging for automatic component placement
- Up to 3000 m range (line of sight)



Network Topologies



Description

The AMB3626 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).

A USB stick version is available to easily connect the AMB3626 to a PC system.

The AMB3626 is designed as a SMT device and is suitable for automatic component assembly. It can also be delivered in tape and reel packaging.

Interfaces

The AMB3626 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.

An SPI interface can be implemented upon request (separate firmware).

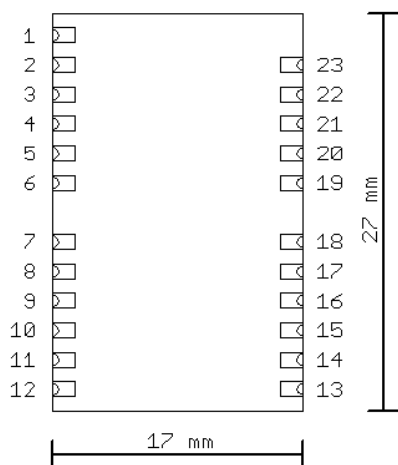
Using appropriate firmware, the module is also suitable for autonomously recording digital or analogue signals.

Range of Application

Data acquisition, monitoring, and sensor networks.

Its compact dimensions and low power consumption also makes the radio module ideal for battery-powered applications.

Dimensions



Pin Assignment

No.	Pad Name	I/O	Description
1	ANTENNA	-	Antenna connection
2,23	GND	-	Ground
3	VCC	-	Positive supply voltage
4	UTXD	O	UART transmit
5	URXD	I	UART receive
6	/RTS	O	Flow control
7	/CTS	I	Flow control
8	/DATA_INDICATE	O	Signals incoming data
11	/DATA_REQUEST	I	Triggers packet transmission
13	SLEEP	I	Selection of low-power mode
14	TRX_DISABLE	I	Selection of low-power mode
15	/CONFIG	I	Switches to command mode
19	/RESET	I	Reset
20	RX_INDICATE	O	Signals radio reception
21	TX_INDICATE	O	Signals radio transmission
9,10,12,16,17,18,22	RSVD	-	Reserved (do not connect)

Specifications

Performance	Range*	Up to 3000 m
	RF data rate	Up to 25 kbps
	UART data rate	Up to 115.2 kbps
	Output power	15 dBm (50 Ω)
	RF sensitivity	Down to -120 dBm (@1.2kbps, 50 Ω)
General	Power supply	2.0 – 3.6 V
	Power consumption	- TX: typ. 59 mA - RX: typ. 28 mA - Low Power: typ. <10 μA
	Dimensions	17 x 27 x 4 mm
	Operating temperature	-30 to +85 °C
	Weight	approx. 3 g
	Antenna	External antenna pad (50 Ω)
RF technology	Addressing	Up to 255 nodes on 255 networks
	Frequency range	169.4 – 169.475 MHz
	Channel spacing	typ. 12.5 kHz
	Modulation	2-(G)FSK, (G)MSK, 4-(G)FSK
	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.

Related products

- AMB8626

Ordering information

Item no.	Description
AMB3626	Radio Module 169 MHz
AMB3626-TR	Radio Module 169 MHz, Tape & Reel



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