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!

Contact us

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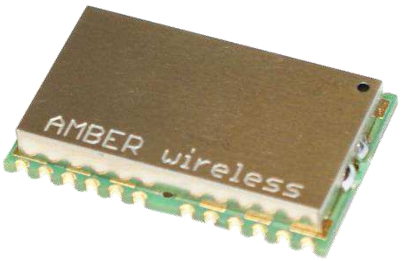
Compact Radio Module – High Performance

AMB8626



- 868 MHz SRD Band
- UART interface
- Integrated AMBER RF stack with extensive functions
- Flexible addressing with up to 255 nodes in 255 networks
- Available on Tape & Reel for SMT assembly
- USB variant available (AMB8665)
- Compatible to AMB8426, enhanced radio chipset radio and microprocessor
- Up to +14 dBm output power
- -117 dBm sensitivity
- 2 to 3.6 V operation
- Conforms with EU RED 2014/53/EU

FEATURES

- Small form factor: 17 x 27 x 4 mm
- Low Power Mode for battery use
- High Performance
- Flooding Mesh

RANGE OF APPLICATION

Data collection, monitoring, remote control and sensor networks.
Its compact dimensions and low power consumption make the radio module ideal for battery-powered devices.

INTERFACE

The AMB8626 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).

The AMB8626 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). The graphical user interface of the freely available Windows application “AMBER-ACC” makes it easy to set operating parameters. A USB stick version is available to easily connect the AMB8626 to a PC system.

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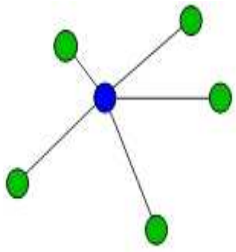
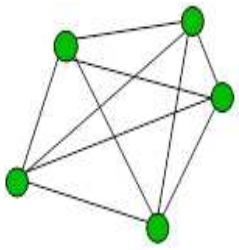
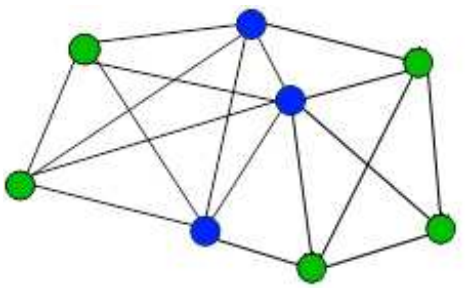
The embedded software protocol stack supports star, peer-to-peer and flooding mesh networks.



Star



Peer to Peer



Flooding Mesh

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

AMBER WIRELESS

www.amber-wireless.com

Compact Radio Module – High Performance

ABOUT AMBER WIRELESS

AMBER wireless GmbH, established in 1997, is a German electronics company. AMBER specializes in the design and manufacturing of wireless connectivity solutions including compact short range RF modules for rapid implementation of cable-free data links. We have become one of the leading suppliers for low power ISM/SRD products in Europe. AMBER provides high-quality and cost-effective wireless modules and devices as well as custom design services.

SERVICES AVAILABLE

- Technical Support
- Custom Design Services
- Software / App Development
- Hardware Support

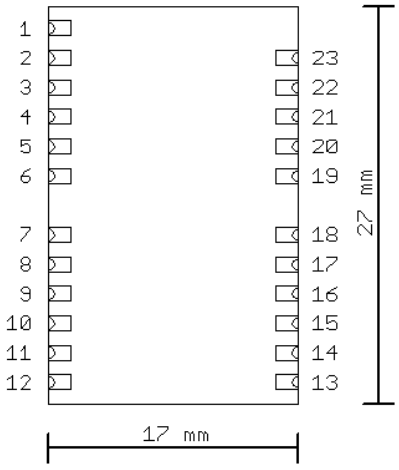
For more information on any of our products or services please visit our website:
www.amber-wireless.com

Specifications

TA = 25°C, VCC = 3 V if nothing else stated.

Performance	Range*	Up to 2000m
	RF data rate	Up to 100 kbps
	UART data rate	Up to 115200 kbps
	Output power	Up to +14 dBm (50 Ohm)
	RF sensitivity	Down to -117 dBm (@ 2.4 kbps, 50 Ω)
General	Power supply	2 - 3.6 V
	Power consumption	Tx: typ. 53 mA @ 14dB,
		Rx: typ. 30 mA
		Low Power: typ. 3 µA
	Dimensions	17 x 27 x 4 mm
	Operating temperature	-30 to +85 °C
	Weight	Approx. 3 g
	Antenna	External antenna port (50 Ω)
RF	Modulation	(G)FSK
	Frequency range	868.0 – 870.0 MHz
	Channel spacing	50 kHz
Compliance	Europe	EN 300 220, EN 301 489, EN 60950, EN 62479

Dimensions and Pin Assignment



No.	Pad Name	I/O	Description
1	ANTENNA	-	Antenna connection
2,23	GND	-	Ground
3	VCC	-	Voltage Supply
4	UTXD	O	UART transmit
5	URXD	I	UART receive
6	/RTS	0	Flow control
7	/CTS	I	Flow control
8	/DATA_INDICATE	O	Signals incoming data
11	/DATA_REQUEST	I	Triggers packet transmission
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
9,10,12,13,16,17,18,22	RSVD	-	Reserved

Ordering Information

Item No.	Description
AMB8626	Radio Module 868 MHz
AMB8626-TR	Radio Module 868 MHz, Tape & Reel

AMBER WIRELESS

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