

868MHz/915MHz radio module for TI Tool eZ430-RF2500

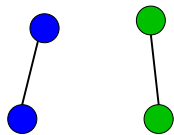
868MHz/915MHz ISM frequency band

Key Features

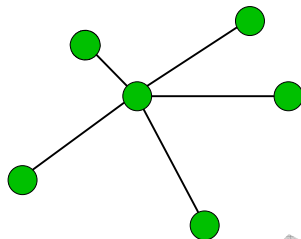
- 868/915 MHz version for TI Tool ez430-RF2500
- simply replacement
- Over-the-Air Data rate up to 250Mbps
- Using Simplici-TI possible
- Only for developing



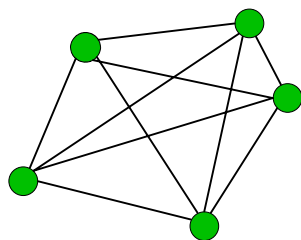
Netzwerk-Topologien



Point-to-point



Point-to-Multipoint



Peer-to-Peer

Description

AMB8423 is the 868/915 MHz-version of the 2.4GHz radio module of the TI-Tools eZ430-RF2500.

The AMB8423 differs to 2.4 GHz of solution in the RF chip and in the antenna. All other functions of the boards as well as the interface are identical.

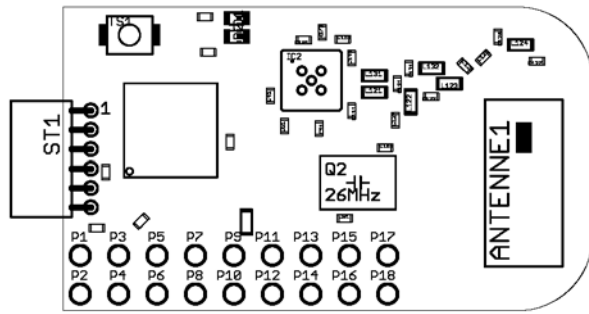
By use of the AMB8423 the Radio-Settings are to be adapted to the new frequency bands.

Detailed information about the interface and the programming is to be taken the TI documentation eZ430-RF2500 User's guide

Range of Application

868/915MHz version for eZ430-RF2500

Dimension [mm]: 35 x 20



Pin-Assignment

ST1

Pin	I/O	Description
1	I	RXD0
2		VCC
3	I	Test/SBWTCK
4	I	#RST/SBWTIO
5		GND
6	O	TXD0

PAD's

Pin	Description	Pin	Description
1	GND	2	VCC_EXT
3	P20	4	P21
5	P22	6	P23
7	P24	8	P43
9	P44	10	P45
11	P46	12	GND
13	GDO0	14	GDO2
15	P32_UCB0SOMI	16	P33_UCB0CLK
17	P30_UCB0STE	18	P31_UCB0SIMO

Specifications

Performance	Range	Up to 300 m
	RF data rate	Up to 250 kbps
	Interface data rate	Up to 256 kBaud (UART)
	Output power	Typ.: 2 dBm W. e.r.p 10 dBm 50 Ohm conducted
	RF sensitivity	Typ.: -111 dBm @ 1,2 kBaud, 50 Ohm conducted -103 dBm @ 38,4 kBaud, 50 Ohm conducted -94 dBm @ 250 kBaud, 50 Ohm conducted
General	Power supply	1,8 V ¹ – 3,6 V
	Power consumption	TX: 35 mA RX: 19,5 mA Sleep: 2,5 µA
	Dimensions	35 x 20 mm
	Operating temperature	-30 °C to +85 °C
	Weight	< 2 g
	Antenna	Integrated ceramic antenna
	Microprocessor	Texas Instruments MSP430F2274
	RF-transceiver	Texas Instruments CC1101
RF technology	Frequency range	868 and 915 MHz
	Modulation	GFSK, FSK

Related Products

- **AMB8420** and **AMB8420** Evaluation-Kit
- **AMB8460** USB Stick based on AMB8420
- **AMB4420** (434 MHz) / **AMB2520** (2,4GHz) Short Range radio module
- **AMB4400** (434 MHz) / **AMB8400** (868 MHz) / **AMB2500** (2,4 GHz) RF-Transceiver without microprocessor

Ordering information

Item no.	Description
AMB8423	

Contact

AMBER wireless GmbH
 Albin-Köbis-Straße 18
 D-51147 Köln
 Tel.: +49 (0) 2203-699195-0
 E-mail: info@amber-wireless.de
 Internet: www.amber-wireless.de

¹ During programming Vmin = 2,2 V, otherwise as function of the system frequency between 1,8 V @ 4,15 MHz and 3,3 V @ 16 MHz, s. data sheet MSP430F2274