



EM1511 – C868

868/915 MHz USB to RF Transceiver Module

GENERAL DESCRIPTION

The EM1511 is a 70mm x 23mm radio transceiver module with USB Connector available for use in 868-870MHz or 902-928MHz ISM bands. The module is suitable for circuit applications which have to satisfy either European (ETSI EN300-220-1, EN301-489-3) or the North American (FCC part 15.247, 15.249) regulatory standards.

Virtually no RF knowledge is required to use this RF Stick. Wireless communication in Receive Mode can be obtained with just connecting to the PC.

Anylink provides basic firmware routines for controlling the module and typical applications.

KEY PRODUCT FEATURES

- Instant RF – Plug and use!
- No RF knowledge required
- Standard size 70mm x 23mm
- Directly connected to USB
- Power supply from USB Port
- Maximum output power of +12,5 dBm
- Receiver sensitivity of -113dBm @ OOK / 2kbps
- Very high data rate up to 200 kbps @ FSK
- Current consumption Tx = 25mA @ 10dBm
- Current consumption Rx=3 mA

APPLICATIONS

- Wireless Keyboard connection
- Wireless USB Bridge
- Wireless PC Control

DEVICE OPTIONS

Part	Frequency band	Pin Package
EM1511C868	868 - 870 MHz	Stick
EM1511C915	902 - 928 MHz	Stick

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1. ELECTRICAL CHARACTERISTICS

1.1. ABSOLUTE MAXIMUM OPERATING RANGES

Description	Min	Max	Unit
Operating temperature	-40	+85	°C
Storage temperature	-55	125	°C



CAUTION: ESD sensitive device.
Precaution should be taken when handling the device in order to prevent permanent damage



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WIRELESS PRODUCTS

1.2. SPECIFICATIONS

The USB Stick is powered through USB Port of the PC.

Symbol	Parameter	Conditions	Min	Typ	Max	Units
f _{SYNTH}	Synthesizer Frequency Range	DP1211-C868	868	--	870	MHz
		DP1211-C915	902	--	928	MHz
RFS_FSK	RF Sensitivity (FSK)	869MHz, BR=25kb/s		-107		dBm
RFS_OOK	RF Sensitivity (OOK)	869MHz, BR=2kb/s		-113		dBm
IDDR	RX mode supply current			3	3.5	mA
IDDT	TX mode supply current	PRF = 1 dBm		16	21	mA
		PRF = 10 dBm		25	30	mA

2. FUNCTIONAL DESCRIPTION

The USB Stick EM1511 is a good choice to evaluate RF Projects directly with the USB Port from your Computer or Notebook. The integrated SX1211 from Semtech provides a 2-way communication. So you can use the EM1511 as a receiver for your new Transmitter Development or as a transmitter if you want to develop a Receiver project. Also you are able to implement different Protocols (like MBUS) into the Stick and use it in any way you want.

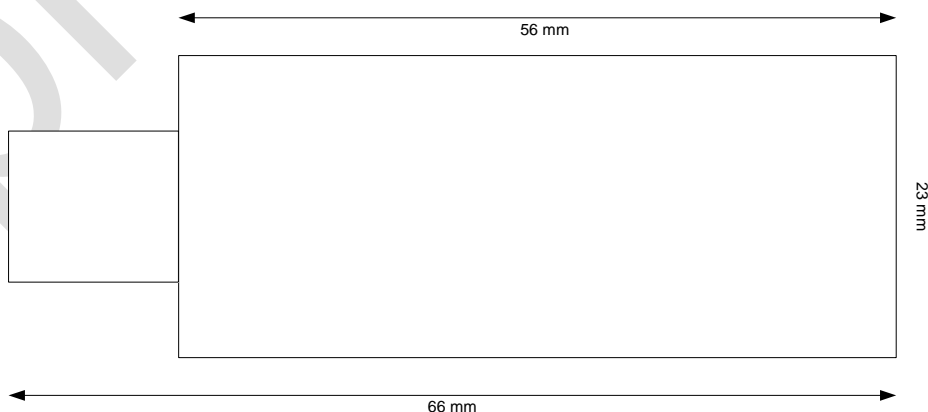
Perfect integration is possible with the implemented Boot Loader, it allows you to change the firmware and adapt it to your own application.

For your development Anylink provides a Starterkit. It contains one EM1511 USB Stick and one EM2311 3-key Transmitter Board or one EM2511 5-key Transmitter Board. Datasheets are available from our Website www.anylink.de

Do not hesitate to contact us for further information or special questions via Mail: info@anylink.de or via Phone: 0049 841 90 14 451

3. MECHANICAL DIMENSIONS

The following diagram shows the physical footprint and dimensions of the EM1511 USB Stick, which can be connected to each USB Port.



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Version	Create Date:	Creator	Changes
V01	21.10.10	Hermann	Create new Datasheet

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