

LoRaWAN Module MS23SF1



Datasheet v 1.0.0

Copyright© Shenzhen Minewsemi Co., Ltd.



MS23SF1-STM32WLE5CC

Low-power,ultra-long-range,small and easy to operate, high-sensitivity, support LoRaWAN

MS23SF1 Module is selected from ST LoRaWAN STM32WLE5CC, Wireless Half duplex transceiver chips, which supports global frequency ISM. It is a typical LoRa®WAN transceiver module, that supports multiple interfaces. The current in receive mode is only 4.2mA. It can achieve transmission power up to +20.5dBm with higher reception sensitivity, and down to -146dBm. compliance with the physical layer requirements of the LoRaWAN® standard specification, and support for LoRa® P2P(points-to-point). Supporting customers in the rapid set-up of their private, long-range LoRa® networks.

01

FEATURES











48MHz Arm Cortex-M4

Small dimension, built-in Programmable bit rate, 64KB internal RAM, 256KB Flash

Transmission Range up to 5KM

support GPIO24

Tx Power maximum up to +20.5dBm, RSSI -146dBm

KEY PARAMETER

MS23SF1			
Chip Model	STM32WLE5CC	Antenna	None
Module size	20.72x19.13x3mm	GPIO	24
Flash	256KB	RAM	64KB
Receiving Sensitivity	-146dBm	Transmission Power	+20.5dBm
Current(TX)	120mA	Current(RX)	4.2mA

APPLICATION



Smart Metering



Building Automation



Agriculture Sensor



Retail Sensor





COPYRIGHT STATEMENT

This manual and all the contents contained in it are owned by Shenzhen Minewsemi Co., Ltd. and are protected by Chinese laws and applicable international conventions related to copyright laws.

The certified trademarks included in this product and related documents have been licensed for use by MinewSemi. This includes but is not limited to certifications such as BQB, RoHS, REACH, CE, FCC, BQB, IC, SRRC, TELEC, WPC, RCM, WEEE, etc. The respective textual trademarks and logos belong to their respective owners. For example, the Bluetooth® textual trademark and logo are owned by Bluetooth SIG, Inc. Other trademarks and trade names are those of their respective owners. Due to the small size of the module product, the "®" symbol is omitted from the Bluetooth Primary Trademarks information in compliance with regulations.

The company has the right to change the content of this manual according to the technological development, and the revised version will not be notified otherwise. Without the written permission and authorization of the company, any individual, company, or organization shall not modify the contents of this manual or use part or all of the contents of this manual in other ways. Violators will be held accountable in accordance with the law.

RELATED DOCUMENTS

- stm32WLE5c8_Chip_Datasheet
 https://en.minewsemi.com/file/stm32WLE5c8_Chip_Datasheet_EN.pdf
- MinewSemi_Product_Naming_Reference_Manual_V1.0
 https://en.minewsemi.com/file/MinewSemi_Product_Naming_Reference_Manual_EN.pdf
- MinewSemi_Connectivity_Module_Catalogue_V2.0
 https://en.minewsemi.com/file/MinewSemi_Connectivity_Module_Catalogue_EN.pdf



For product change notifications and regular updates of Minewsemi documentation, please register on our website: www.minewsemi.com

M!NEWSEMi









SHENZHEN MINEWSEMI CO., LTD.



0086-755-2801 0353



https://minewsemi.com



minewsemi@minew.com



https://store.minewsemi.com



No.8, Qinglong Road, Longhua District, Shenzhen, China