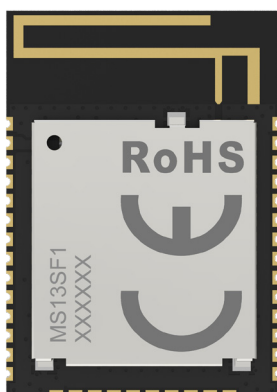


# Wi-Fi Command Module **MS13SF1**



**Datasheet**  
V 1.0.0



# MS13SF1-ESP32

High-performance, multi-functional, cost-effective, passthrough support, WiFi 4 + BLE 4.2 combo module with full development resource support

The MS13SF1 is a versatile, high-performance and cost-effective wireless WiFi 4+ BLE4.2 combo module based on the ESP32-D0WD-V3 SoC. Xtensa® 32-bit LX6 with dual cores running at 240 MHz, 448 KB+8MB FLASH, 520KB+16KB RAM, integrated 2.4 GH transceiver, LNA and other powerful resources provide the perfect solution for 2.4G WiFi/BLE connectivity. The actual test distance under high interference conditions can reach 80M.

## FEATURES



2.4G WiFi4  
(802.11b/g/n)  
+ BT/BLE 4.2



High performance,  
dual-core SoC



Supports AP, STA,  
AP+STA modes



Supports AT,  
ESP-IDF develop-  
ment



Compatible with ISO  
11898-1, i.e., CAN  
specification 2.0



Support SDIO,  
SPI, UART and  
other interfaces



Supports OTA  
encryption  
upgrades

## KEY PARAMETER

MS13SF1			
Chip Model	ESP32-D0WD	Antenna	PCB
Module size	25.5x18x2.2mm	GPIO	21
Flash	8MB+448KB	RAM	520KB+16KB
Receiving Sensitivity	BLE:-94dBm WiFi:-98dBm	Transmission Power	BLE:-12 ~ +9dBm WiFi:-12~ +20.5dBm
Current(TX)	19.5dBm- 239mA	Current(RX)	118mA

## APPLICATION



Smart  
Healthcare



Consumer  
Electronics



Smart  
Agriculture



Security  
Equipment



Industrial  
Automation



Automotive  
Devices



# 1 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.

# 2 RELATED DOCUMENTS

- [esp32-c6\\_Chip\\_Datasheet](https://en.minewsemi.com/file/esp32-c6_Chip_Datasheet_EN.pdf)  
[https://en.minewsemi.com/file/esp32-c6\\_Chip\\_Datasheet\\_EN.pdf](https://en.minewsemi.com/file/esp32-c6_Chip_Datasheet_EN.pdf)
- [MinewSemi\\_Product\\_Naming\\_Reference\\_Manual\\_V1.0](https://en.minewsemi.com/file/MinewSemi_Product_Naming_Reference_Manual_V1.0)  
[https://en.minewsemi.com/file/MinewSemi\\_Product\\_Naming\\_Reference\\_Manual\\_V1.0](https://en.minewsemi.com/file/MinewSemi_Product_Naming_Reference_Manual_V1.0)
- [MinewSemi\\_Connectivity\\_Module\\_Catalogue\\_V2.0](https://en.minewsemi.com/file/MinewSemi_Connectivity_Module_Catalogue_V2.0)  
[https://en.minewsemi.com/file/MinewSemi\\_Connectivity\\_Module\\_Catalogue\\_V2.0](https://en.minewsemi.com/file/MinewSemi_Connectivity_Module_Catalogue_V2.0)



For product change notifications and regular updates of Minewsemi documentation, please register on our website: [www.minewsemi.com](http://www.minewsemi.com)

**MINESEMI****SHENZHEN MINEWSEMI CO., LTD.**

0086-755-2801 0353

<https://minewsemi.com>[minewsemi@minew.com](mailto:minewsemi@minew.com)<https://store.minewsemi.com>

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