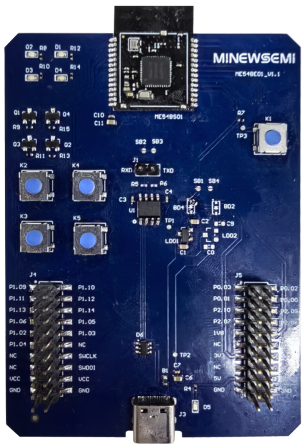
MINEWSEMI

Development Board
ME54BE01



Datasheet

V 1.0.0

Version Note

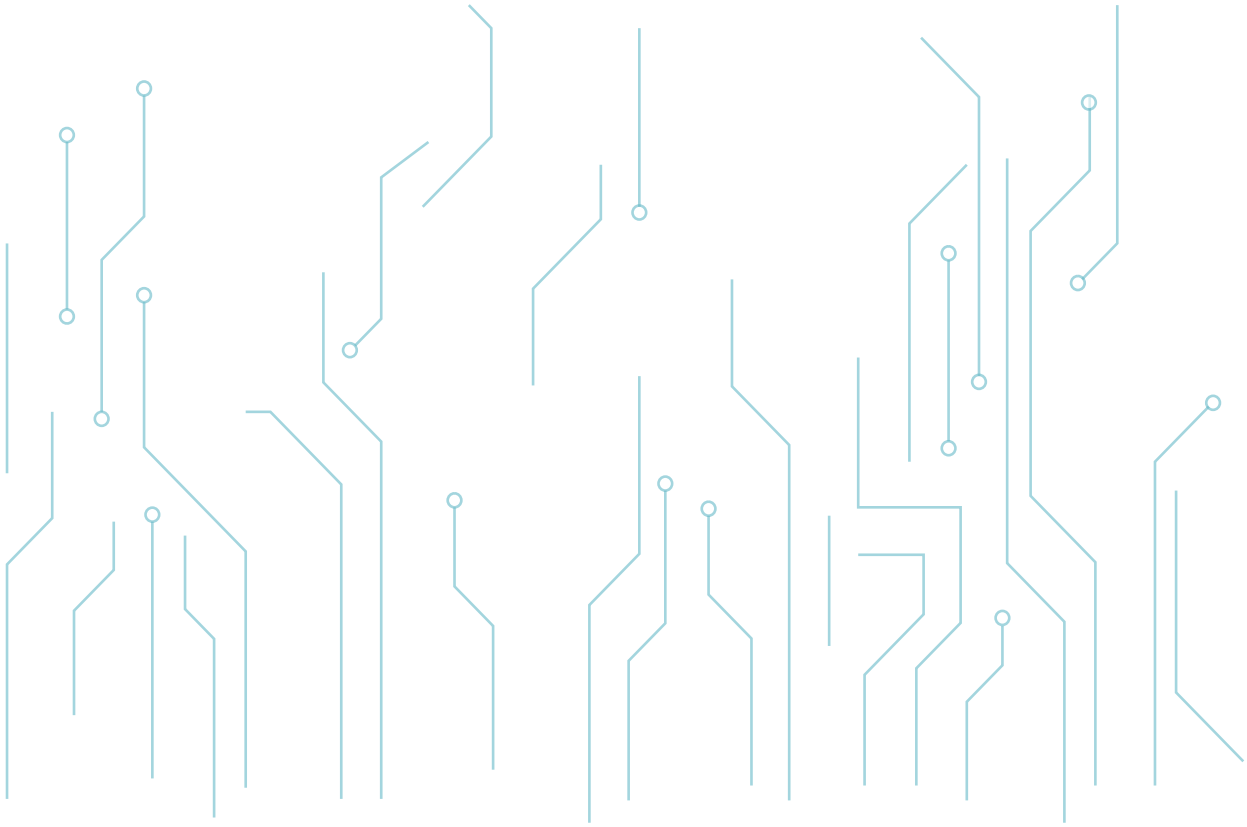
Version	Details	Contributor(s)	Date	Notes
1.0.0	First edit	Owen, Leo	2024.10.25	

Part Number

Model	Hardware Code
ME54BE01	-

Click the icon to view and download the latest product documents electronically.
https://en.minewsemi.com/file/Development_Board_ME54BE01_Datasheet_EN.pdf

INDEX



1 OVERVIEW

ME54BE01 development board integrates a serial chip and supports Type-C power supply. To facilitate module development and usage, the board includes several buttons, switches, and indicator functions, making it more convenient for testing and operations during the development process.

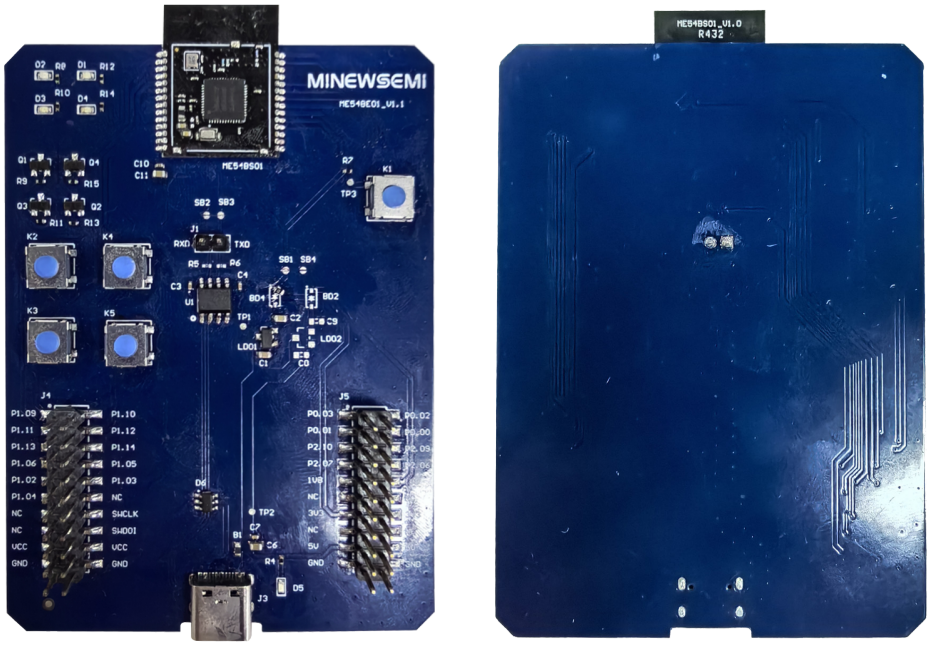
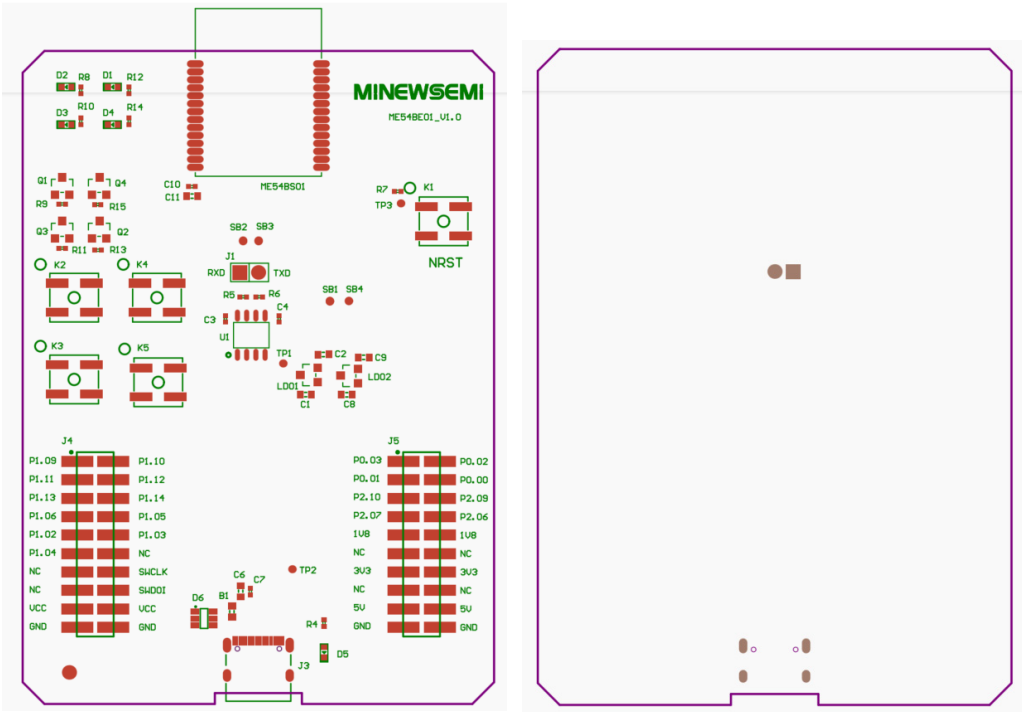


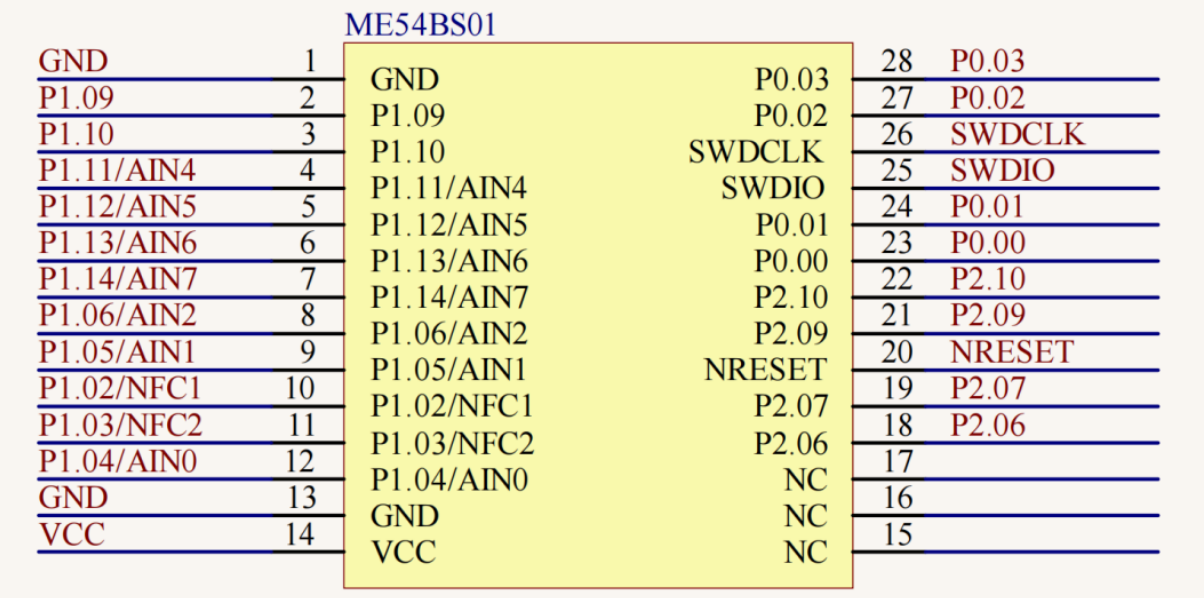
Figure 1: ME54BE01 Front/Back

2 ME54BE01 FUNCTION IDENTIFICATION



Identification	Type	Function
K1	Reset pin	Reset
K2	KEY	P1.13
K3	KEY	P1.09
K4	KEY	P1.11
K5	KEY	P1.12
D1	LED	P2.07
D2	LED	P1.10
D3	LED	P2.09
D4	LED	P1.14
D5	LED	Power supply light
J3	Type-C power supply	Type-C power supply port, standard 5V power supply
U1	USB to serial port	UART

3 ME54BE01 PIN DEFINITION

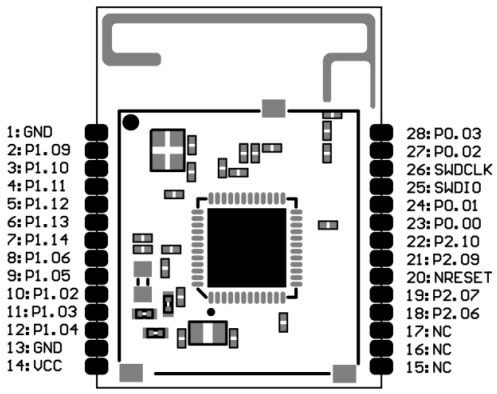


Pin Number	Symbol	Type	Definition
1/13	GND	GND	GND
2-12	P1.02-P1.06/ P1.09-P1.14	I/O	General IO Port
14	VCC	VCC	Power supply, default 1.8V-3.6V with this pin
15-17	NC	NC	Empty pins
18-19	P2.06/P2.07	I/O	General IO Port
20	NRESET	Reset pin	Reset
21-24	P2.03-P2.10/ P0.00-P0.01	I/O	General IO Port
25/26	SWDIO/SWDCLK	Burn Pins	Programming pin, when programming, just connect the power supply pin, ground, and these two pins
27-28	P0.02-P0.03	I/O	General IO Port

*The pin definitions in the above table are the general pin definitions of the transparent firmware for the module application. The definitions vary according to the actual application of different pins of the module. The actual specifications of the module shall prevail.

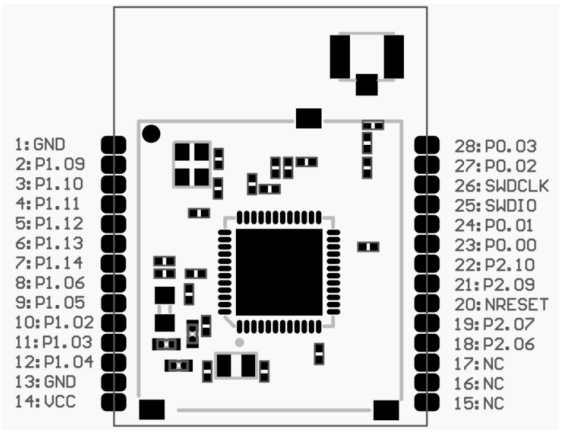
4 APPLICABLE MODULES PIN DEFINITION

4.1 ME54BS01 Pin Definition



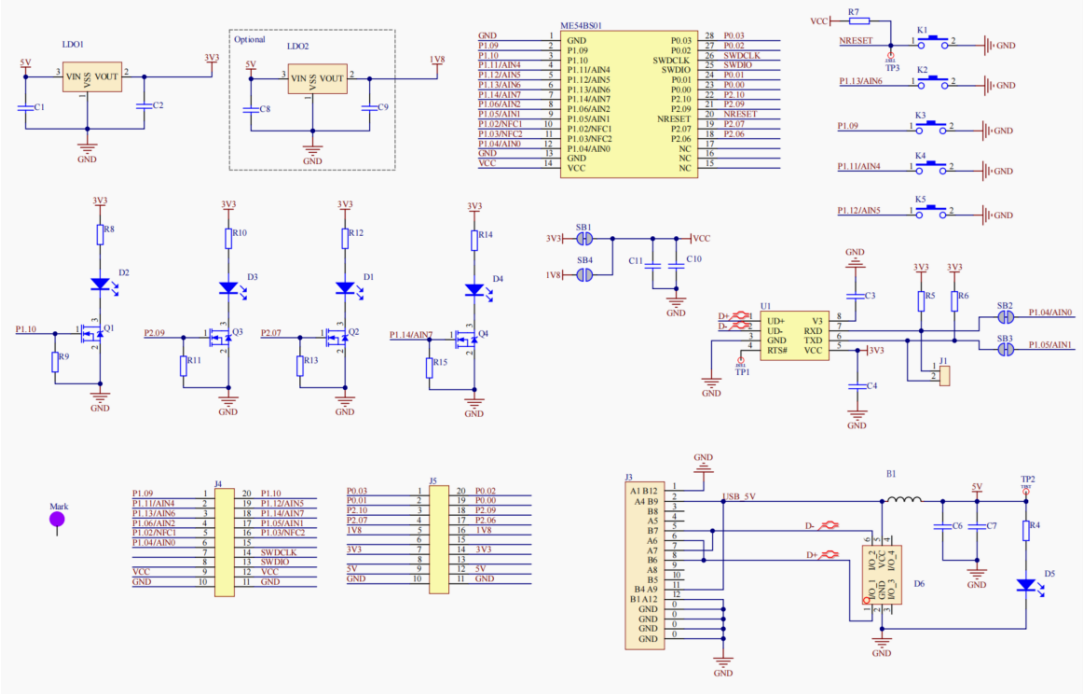
Pin Number	Symbol	Type	Definition
1/13	GND	GND	GND
2-12	P1.02-P1.06/ P1.09-P1.14	I/O	General IO Port
14	VCC	VCC	Power supply, default 1.8V-3.6V with this pin; Switchable 1.7V-2.6V supply method， If you want to use this mode of power supply, please talk to your salesman about the specific configuration you need.
15-17	NC	NC	Empty pins
18-19	P2.06/P2.07	I/O	General IO Port
20	NRESET	Reset pin	Reset
21-24	P2.03-P2.10/ P0.00-P0.01	I/O	General IO Port
25/26	SWDIO/SWDCLK	Burn pins	Burn pins, burn only need to connect the power supply pin, ground, and these two pins
27-28	P0.02-P0.03	I/O	General IO Port

4.2 ME54BS03 Pin Definition

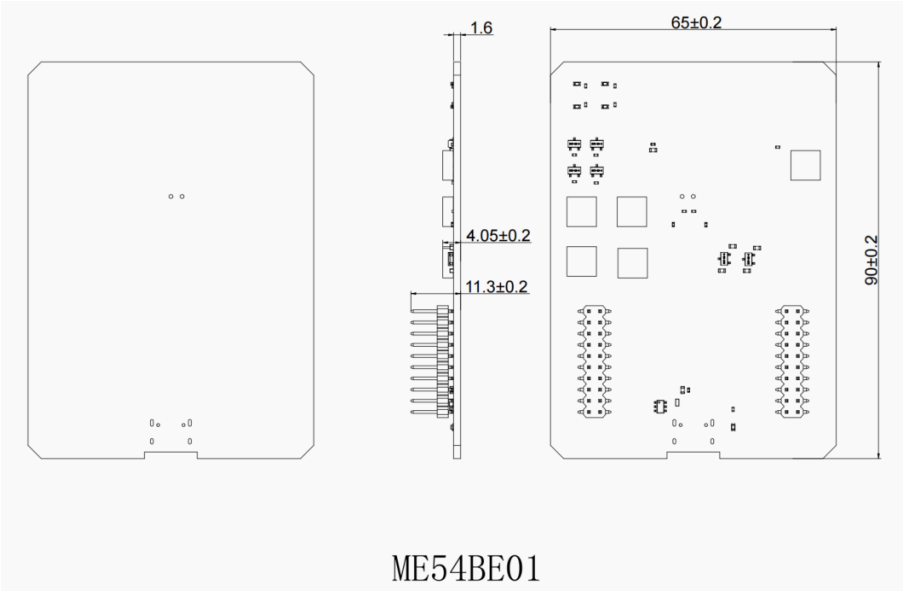


Pin Number	Symbol	Type	Definition
1/13	GND	GND	GND
2-12	P1.02-P1.06/ P1.09-P1.14	I/O	General IO Port
14	VCC	VCC	Power supply, default 1.8V-3.6V with this pin; Switchable 1.7V-2.6V supply method，If you want to use this mode of power supply, please talk to your salesman about the specific configuration you need.
15-17	NC	NC	Empty pins
18-19	P2.06/P2.07	I/O	General IO Port
20	NRESET	Reset pin	Reset
21-24	P2.03-P2.10/ P0.00-P0.01	I/O	General IO Port
25/26	SWDIO/SWDCLK	Burn pins	Burn pins, burn only need to connect the power supply pin, ground, and these two pins
27-28	P0.02-P0.03	I/O	General IO Port

5 ELECTRICAL SCHEMATIC



6 MECHANICAL DRAWING



7 APPLICABLE PRODUCT MODELS

Order Model	Antenna Type	Module Model - Chip Type
ME54BS01	PCB	ME54BS01-nRF54L15
ME54BS03	IPEX	ME54BS03-nRF54L15

8 STORAGE CONDITIONS

- **Please use this product within 6 months after signing the receipt.**
  - This product should be stored without opening the package at an ambient temperature of 5~35°C and a humidity of 20~70%RH.
  - This product should be left for more than 6 months after receipt and should be confirmed before use.
  - The product must be stored in a non-corrosive gas (Cl2, NH3, SO2, NOx, etc.).
  - To avoid damaging the packaging material, do not apply any excessive mechanical shocks, including but not limited to sharp objects adhering to the packaging material and product dropping.

- **This product is suitable for MSL2 (based on JEDEC standard J-STD-020).**
  - After opening the package, the product must be stored at ≤30°C/<60%RH. It is recommended to use the product within 3-6 months after opening the package.
  - When the color of the indicator in the package changes, the product should be baked before welding.

- **Baking is not required for one year if exposure is limited to <30°C and 60%RH. Refer to MSL2 for exposure criteria for moisture sensitivity level. If exposed to (≥168h@85°C/60%RH) conditions or stored for more than one year, recommended baking conditions.**

  1. 120 +5/-5°C, 8 hours, 1 time

  Products must be baked individually on heat-resistant trays because the materials (base tape, reel tape, and cover tape) are not heat-resistant, and the packaging material may be deformed at temperatures of 120℃;

  2、90℃ +8/-0℃, 24hours, 1times

  The base tape can be baked together with the product at this temperature. Please pay attention to the uniformity of heat.

9 HANDLING CONDITIONS

• Be careful in handling or transporting products because excessive stress or mechanical shock may break products.

• Handle with care if products may have cracks or damages on their terminals. If there is any such damage, the characteristics of products may change. Do not touch products with bare hands that may result in poor solder ability and destroy by static electrical charge.

10 QUALITY

Cognizant of our commitment to quality, we operate our own factory equipped with state-of-the-art production facilities and a meticulous quality management system. We hold certifications for ISO9001, ISO14001, ISO27001, OHSA18001, BSCI.

Every product undergoes stringent testing, including transmit power, sensitivity, power consumption, stability, and aging tests. Our fully automated module production line is now in full operation, boasting a production capacity in the millions, capable of meeting high-volume production demands.

11 COPYRIGHT STATEMENT

12 RELATED DOCUMENTS

- 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

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MINEWSEMI

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