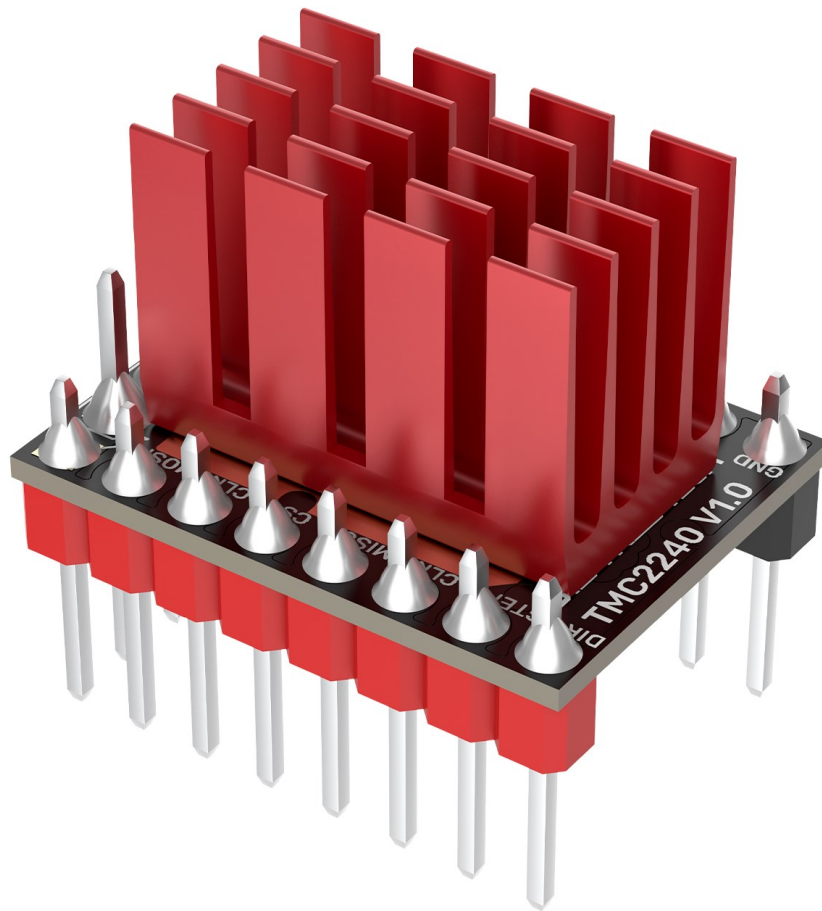


BIGTREETECH

TMC2240 V1.0

User Manual



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Shenzhen Big Tree Technology Co., Ltd.
BIGTREETECH

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Revision History

Version	Revisions	Date
01.00	Original	2023/04/08

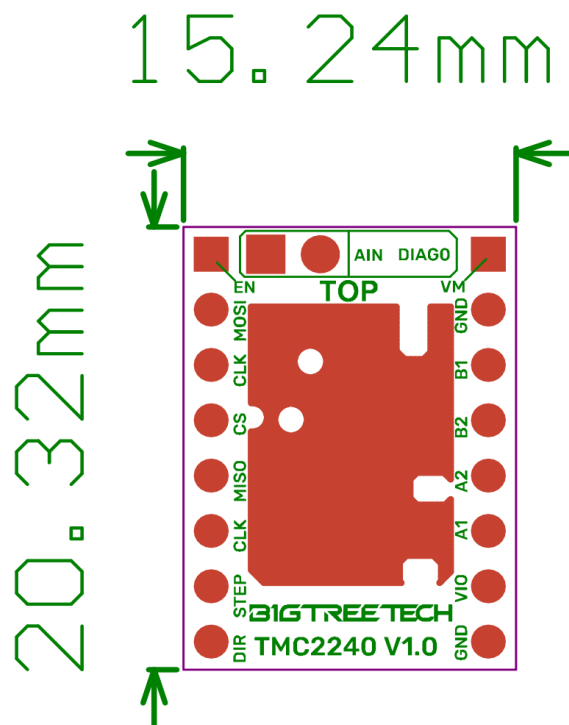
Product Profile

The BIGTREETECH TMC2240 driver is a new generation of silent drivers, supporting a higher voltage range and a larger current output.

Specifications

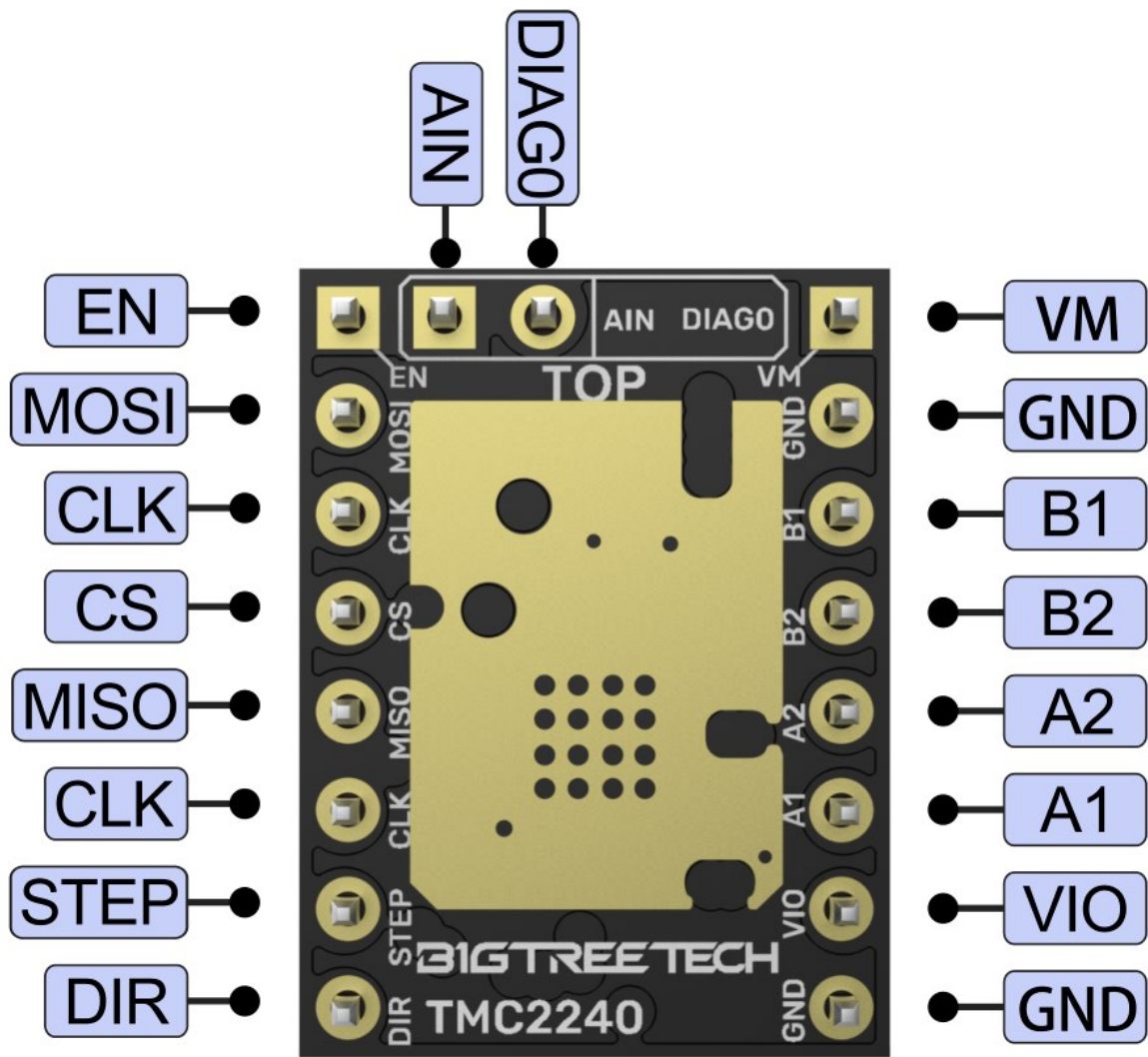
1. Supports High Subdivision: 256 microsteps
2. Supports Voltage: 4.5-36V DC
3. Supports Maximum Current: $I_{RMS}=2.1A$ $I_{FS}=3A$
4. Supports Sensorless Homing
5. Low on-resistance: $R_{dson}(H+L) = 230m\Omega$
6. Communication Modes: SPI or UART (SPI by default)
7. Overheating Protection, Overvoltage Protection, Stall Protection
8. Supports Analog Signal Input
9. Real-time Monitoring of Motor and Drive Temperatures

Dimensions



Peripheral Interface

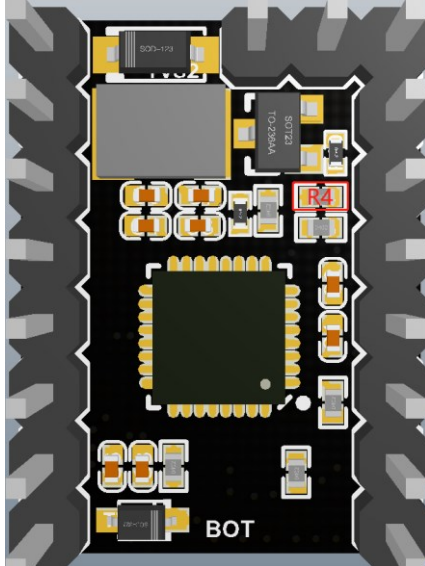
Pin Description



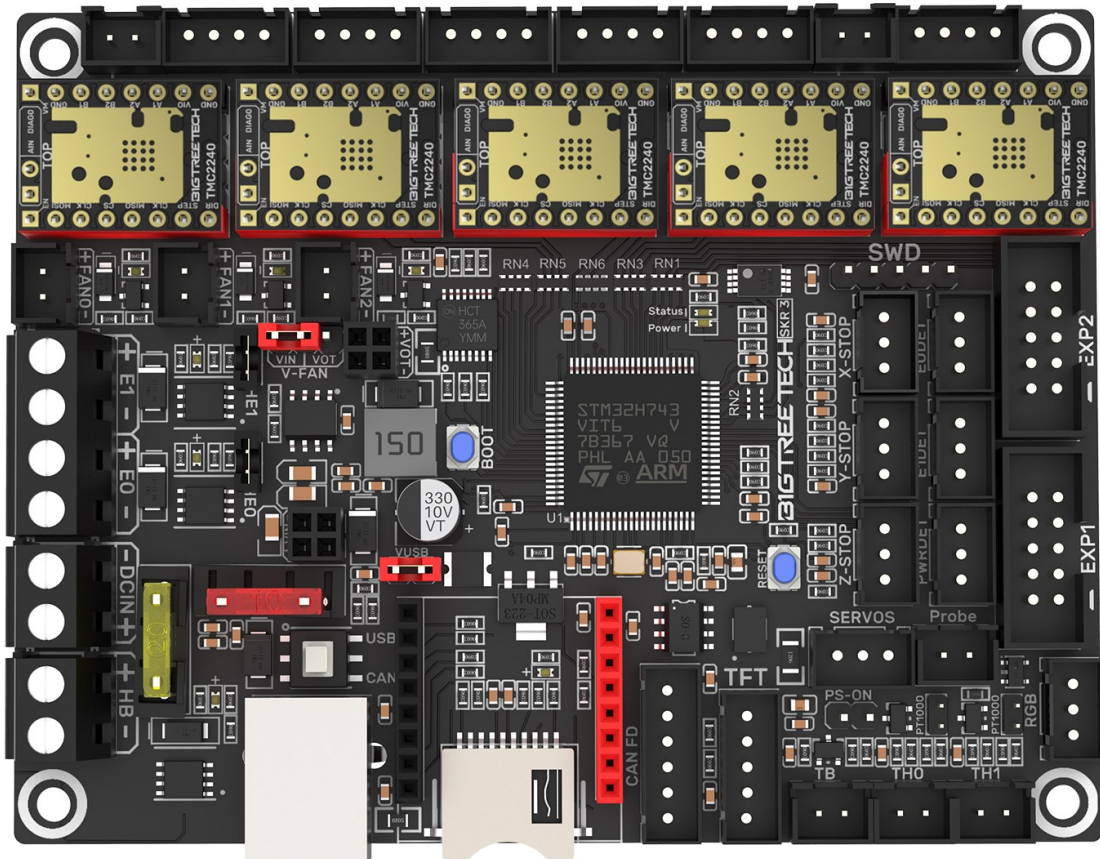
Usage Examples

Mode Selection

The factory default is SPI mode. If customers want to use UART mode, the solder joint at R4 needs to be short-circuited as shown below:



Work with SKR 3



Precautions

1. When plugging in the drive, be sure to orient the connector correctly to avoid reversing the polarity and damaging the drive.
2. When using high voltage (greater than 24V) or high current (greater than 1.2A), active cooling must be used to prevent the drive from overheating.
3. The factory default mode for the driver is SPI. This mode is recommended for most users. If UART mode is required, manual soldering is necessary. It is not recommended for users without soldering experience to attempt this, as it may cause injury.

If you require additional resources for this product, please visit <https://github.com/bigtreetech/> to find them. If you cannot locate the resources you need, please contact our customer support.

If you encounter other problems during use, please feel free to contact us, and we will be more than happy to assist you. If you have any suggestions or feedback for our products, we are open to hearing them. Thank you for choosing BIGTREETECH products!