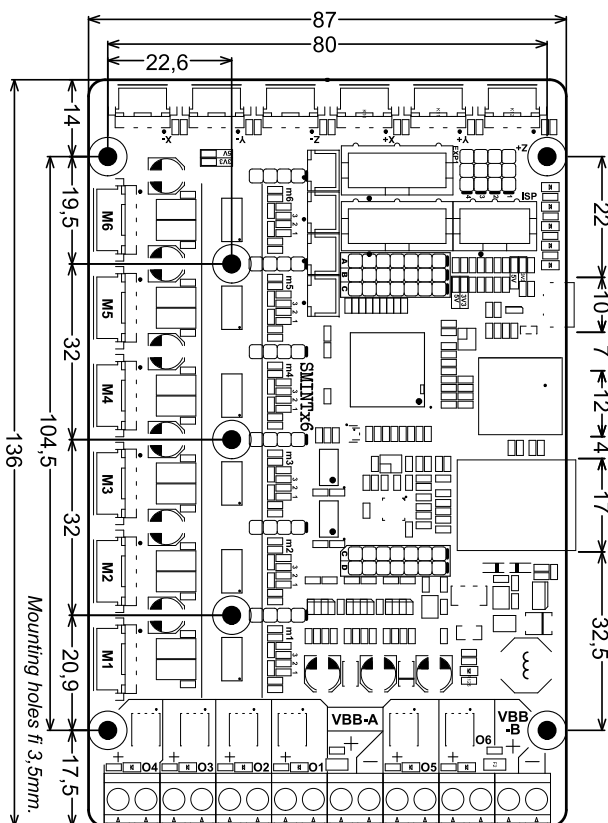


SMINTx6 motion controller

for 3d printers, routers, engravers, laser cutters and other CNC machines

Dimensions

L 136 x W 87 x H mm



Highlighted Features

- 32bit ARM Cortex M3 processor running @120MHz
- Smoothie firmware compatible
- 6 new stepper drivers from Allegro with 1/32 and Adaptive Percent Fast Decay (APFD) on board Ethernet
- 6 equivalent high current FETs (2 with optional separated power supply) headers for direct GLED (spi) connection and smart panel (UART)
- Optimised layout for passive cooling
- 12V and 24V single power supply
- Compact size: 140x92mm

Description

SMINTx6 is a 32 bit motion controller for all kind of CNC machines. It is based on open source smoothieware and it is compatible with smoothie board in basic functionalities.

SMINTx6 is equipped with the new version of Allegro stepper drivers A5984 supporting 1/32 step mode and new APED algorithm for less vibrations, increased step accuracy and less audible motor noise.

Furthermore, there are six stepper drivers on the board, three for XYZ axes and other three can be used for multiple extruders or additional axes on the CNC machine. Two out of six FET driven power outputs have optionally independant power supply connection. This is useful if you need to mix 12V and 24V heaters, vents, pumps etc. A 5V regulator on the board allows the user to select between 3.3V and 5V supply for end switches or sensors. The PCB layout is optimised for better thermal dissipation and there are mounting holes for heat sink near stepper drivers and FETs.

For future options there are prepared headers for SPI, I2C and UART, which allows advanced users to easily add new hardware like display panel, WiFi module, temperature sensors etc.

Extra information and instructions

- <https://www.allegromicro.com/en/About-Allegro/News-Room/2016/A5984-Press-Release.aspx>
- <https://www.allegromicro.com/~media/Files/Datasheets/A5984-Datasheet.ashx>
- <http://smoothieware.org>
- <https://github.com/Smoothieware/Smoothieware>

- stepper driver information
- stepper driver datasheet
- official smoothieware website
- Smoothieware instructions