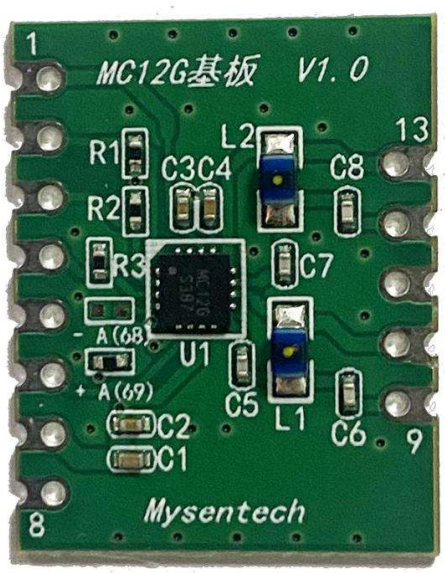
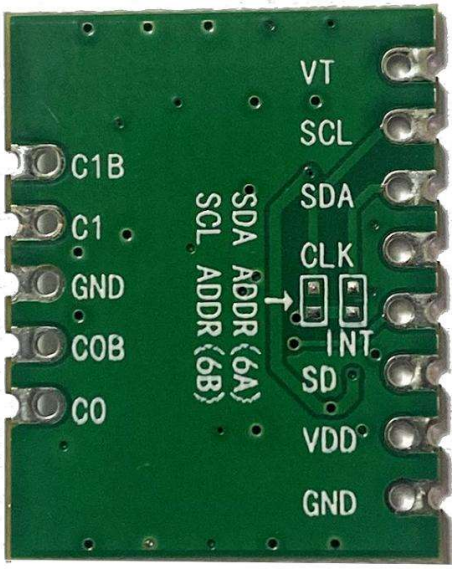
MC12GPCB User Manual

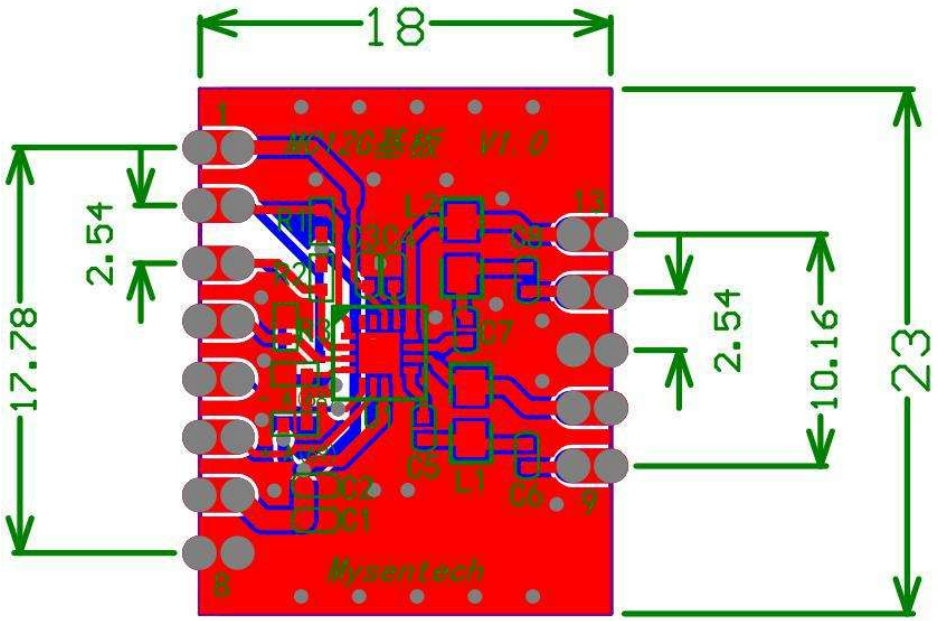
The actual picture of MC12GPCB is as follows:





Left: MC12GPCB front Right: Back side of MC12GPCB

The module size is 23*18mm, as shown in the figure below.



Unit: mm

MC12GPCB Dimensions

MC12GPCB uses half-hole and through-hole designs to facilitate customer testing. Its pin description is shown in the table below.

label	Pin Name	Description
1	VT	Negative Temperature Coefficient Voltage
2	SCL	I2C clock line
3	SDA	I2C data line
4	CLK	external count clock(Note 1)
5	INT	Interrupt signal output, low level is effective
6	SD	Stop mode enable signal
7	VDD	Power supply positive(Note 2)
8	GND	power ground
9	C0	Channel 0 measuring electrode
10	C0B	Channel 0 ground electrode(Note 3)
11	GND	Ground electrode (double electrode structure)
12	C1	Channel 0 measuring electrode
13	C1B	Channel 0 ground electrode(Note 3)

Note:

1. When using an external clock, R3 needs to be removed.
2. VDD 2.0V~5.5V power supply.
3. C0B/C1B is used in dual-electrode structure. The electrode is introduced into the chip through this port to form a single-point grounding. The effect is different from using GND as an electrode and is related to the actual application.

MC12GPCB is in I2C communication mode, and the address can be selected through the jumper resistor on the small baseboard. The default address is 0X69 ('A' and address information are marked on the small baseboard); there are 2 capacitance test channels in total, and single or dual channels can be selected according to actual applications.

MC12GPCB can use internal clock or external clock for measurement. When using internal clock, CLK needs to be pulled low. The small baseboard uses internal clock by default, and jumper resistor R3 is soldered by default. When using external clock, R3 needs to be removed.

For MC12G performance parameters, application circuits, etc., please refer to the manual, application guide and other materials.