

MT2: Stepper motor control cards and systems

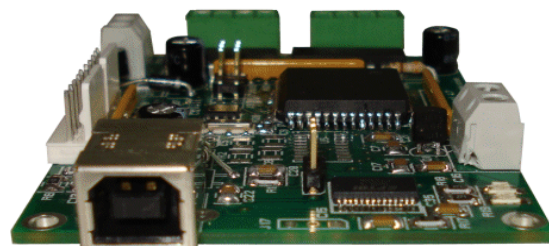
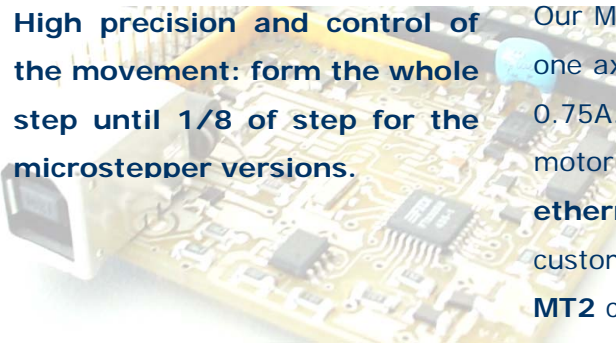
The most complete range of cards for the intelligent control of stepper motors

High precision and control of the movement: from the whole step until 1/8 of step for the microstepper versions.

Our MT2 series is the perfect solution to manage stepper one axis or multi-axes motors with nominal current up to 0.75A. The position commands are directly sent to the motor by the personal computer through **USB**, **serial** or **ethernet** interface, so to answer to the best all customers' needs.

MT2 cards are small size low power control devices which allow to control both two bipolar and two unipolar stepper motors (i.e. 8 and 4 lead motors, and 6 lead centre tapped motors) and their respective limit/home detection sensors (with programmable polarity).

On request all MT2 cards are available in box version with power supply.

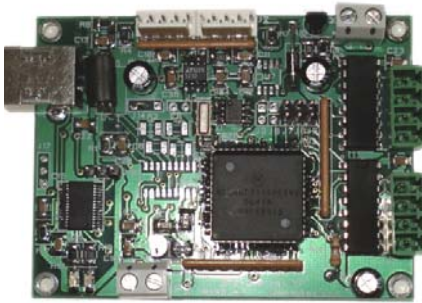


High qualitative level at a competitive cost

On request **IPSES** makes customized versions of its stepper motor control cards, to answer its clients' needs. Especially it is possible to have the cards in different size (so to make easy the integration in a mechanical system) and with embedded communication protocol. Besides, IPSES gives you all the necessary technical advice and assistance, from the wiring of the card since the programming of customized managing software.

Flexibility and customizing: solutions without compromises





CARDS AND SYSTEMS WITH USB INTERFACE

- USB 2.0 interface (type B connector)
- Control and communication logic self supplied through the USB interface
- Auxiliary output enabled by command (open collector. Max 200mA)
- Possibility of multi-cards connection to a PC or to a HUB for simultaneously managing of a customized number of axes
- Braking action activable when the motor is not running
- Limit/home detectors managing (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice
- Further limit-home detection movements (negative run) lockable
- Possibility to activate the home position research at the power up (position on «limit detection»)
- Dimensions: 2.36 x 3,15 inches (60 x 80 mm)
- Driver supplied with the card
- Demo software supplied with the card

MT2USB Version

- Output current: max 0.6 A/ph (1,2 A of peak)
- Motor voltage: 5 - 36 Vdc
- Half-step control
- Selectable speed from 35 up to 1000 half-steps/s, changeable with continuity (other speed on request)
- Position: from more than -1,2 millions up to +1,2 millions of half-steps

MT2USBMS Version

- Output current: max 0.75 A/ph (0,85 A of peak)
- PWM Constant current motor driving through PWM control
- Step, half-step, 1/4 step and 1/8 step programmable control
- Selectable speed from 18 up to 500 microstep/s, changeable with continuity (other speed on request)
- Position from more than -600.000 up to +600.000 microsteps
- Motor voltage: 4,5 - 30 Vdc

MT2USB and MT2USBMS BOX version

- card with power supply integrated in a case
- two DB25 connector outputs where motors and limit/home detectors can be directly connected
- Dimensions: 6.2 x 3.3 x 6.7 inches (158 x 85 x 170 mm)

On request this model can be supplied with different voltages:

- 230Vac (50/60Hz)
- 110Vac (50/60Hz)
- 12Vdc
- 24Vdc.



CARDS AND SYSTEMS WITH ETHERNET INTERFACE



- Ethernet 10base-T interface (RJ45 connector)
- Input voltage: 7 - 15 Vdc
- Working as telnet server with personal TCP/IP address and customizable access login
- Auxiliary output enabled by command (open collector. Max 200mA)
- Current consumption: 250mA @ 12 Vdc (plus motors and auxiliary exit consumption)
- Possibility of multi-cards connection to a PC or to a HUB for simultaneously managing of a customized number of axes
- Braking action activable when the motor is not running
- Limit/home detectors managing (one for each axis)

with adjustable polarity. Use of optical sensors or mechanical switches by choice

- Possibility to activate the home position research at the power up (position on «limit detection»)
- Further limit-home detection movements (negative run) lockable
- Dimensions: 2,95 x 2,95 inches (75 x 75 mm)
- Demo software supplied with the card

MT2ETH version

- Output current: max 0.6 A/ph (1,2 A of peak)
- Selectable speed from 1 up to 1.000 half-steps/s
- Position: from more than -2 billions up to +2 billions of half-steps

MT2ETHMS version

- Output current: max 0.75 A/ph (0,85 A of peak)
- Step, half-step, 1/4 step and 1/8 step programmable control
- Selectable speed from 1 up to 1.000 microsteps/s
- Position form more than -2 billions up to +2 billions of microsteps.

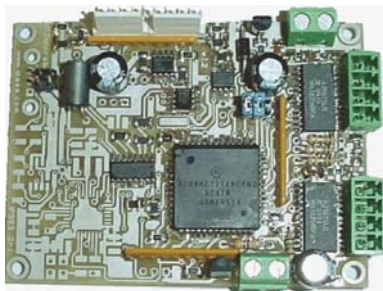
MT2ETH and MT2ETHMS BOX version

- card with power supply integrated in a case
- two DB25 connector outputs where motors and limit/home detectors can be directly connected
- Dimensions: 6.2 x 3.3 x 6.7 inches (158 x 85 x 170 mm)

On request this model can be supplied with different voltages:

- 230Vac (50/60Hz)
- 110Vac (50/60Hz)
- 12Vdc
- 24Vdc.





CARDS AND SYSTEMS WITH SERIAL INTERFACE

- Serial interface (RS232)
- Input voltage: 7 - 15 Vdc
- Auxiliary output enabled by command (open collector. Max 200mA)
- Current consumption: 60mA @ 12 Vdc (plus motors and auxiliary exit consumption)
- Limit/home detectors managing (one for each axis) with adjustable polarity. Use of optical sensors or mechanical switches by choice
- Possibility to activate the home position research at the power up (position on «limit detection»)
- Further limit-home detection movements (negative run) lockable
- Dimensions: 2.36 x 3,15 inches (60 x 80 mm)
- Demo software supplied with the card

MT2 version

- Output current: max 0.6 A/ph (1,2 A of peak)
- Braking action activable when the motor is not running
- Half-step control
- Selectable speed from 35 half-step/s up to 1000 half-step/s, changeable with continuity (other speed on request)
- Position: from more than -1,2 millions up to +1,2 millions of half-steps

MT2MS version

- Output current: max 0.75 A/ph (0,85 A of peak)
- Braking action activable when the motor is not running always with PWM current control
- Step, half-step, 1/4 step and 1/8 step programmable control
- Selectable speed from 18 up to 500 microstep/s, changeable with continuity (other speed on request)
- Position from more than -600.000 up to +600.000 microsteps

MT2 and MT2MS BOX Version

- card with power supply integrated in a case
- two DB25 connector outputs where motors and limit/home detectors can be directly connected
- Dimensions: 6.2 x 3.3 x 6.7 inches (158 x 85 x 170 mm)



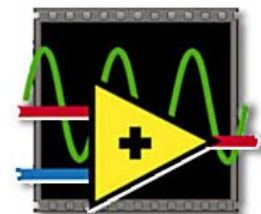
On request this model can be supplied with different voltages:

- 230Vac (50/60Hz)
- 110Vac (50/60Hz)
- 12Vdc
- 24Vdc.

Libraries VI to write applications with National Instruments LabVIEW

•Supporting LabVIEW 7.1 and further versions

- Low level library with functions to manage connection and to dialogue with each card version of MT2 series
- High level library with relevant functions for software development
- Availability of a help file describing the use of library functions
- Availability of examples of application development with LabVIEW library functions: the examples give an introduction to how implement customized remote control of stepper motor control cards



PRODUCT CODE

MT2USB	Two axes stepper motor control card with USB interface
MT2USBMS	Two axes microstepper motor control card with USB interface
MT2USB-BOX	Two axes control system with MT2USB card and power supply integrated in a case
MT2USBMS-BOX	Two axes control system with MT2USBMS card and power supply integrated in a case
MT2ETH	Two axes stepper motor control card with 10MB ethernet interface
MT2ETHMS	Two axes microstepper motor control card with 10MB ethernet interface
MT2ETH-BOX	Two axes control system with MT2ETH card and power supply integrated in a case
MT2ETHMS-BOX	Two axes control system with MT2ETHMS card and power supply integrated in a case
MT2	Two axes stepper motor control card with RS232 serial interface
MT2MS	Two axes microstepper motor control card with RS232 serial interface
MT2-BOX	Two axes control system with MT2 card and power supply integrated in a case
MT2MS-BOX	Two axes control system with MT2MS card and power supply integrated in a case
MT2Library	LabVIEW 7.1 (and further version) library for MT2 card series
MC-connect	Bundle of 2 MC male connectors (for motors) + 2 AMP connectors (for limit/home detectors) <i>(for MT2USB, MT2USBMS, MT2, MT2MS and MT2ETHMS)</i>
AMP-connect	Bundle of 2 AMP connectors (for motors and limit/home detectors). <i>(only for MT2ETH)</i>
USB-A-B	USB cable for USB cards and systems (length: 1,8m – 70.9 inches)
USB-A-B-ill	USB cable with light end for USB cards and systems
MT2-232	Cable with female DB-9 connector for MT2 and MT2MS card

Contacts

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