Eastern Logic Inc

Neo era of Laser Marking Controller

UMC4

UMC4 Laser Marking Controller

Advanced USB - based Laser Marking Controller

UMC4 is a high performance USB interface card designed for Laser Marking System. It is your best choice in laser marking application. For the stand-alone marking function, it could storage up to 16 files. Besides, user could choose between those files through I/O signal. Also support PLC human-machine interface for user to easily perform laser marking task. UMC4 is your best choice for your laser marking system.
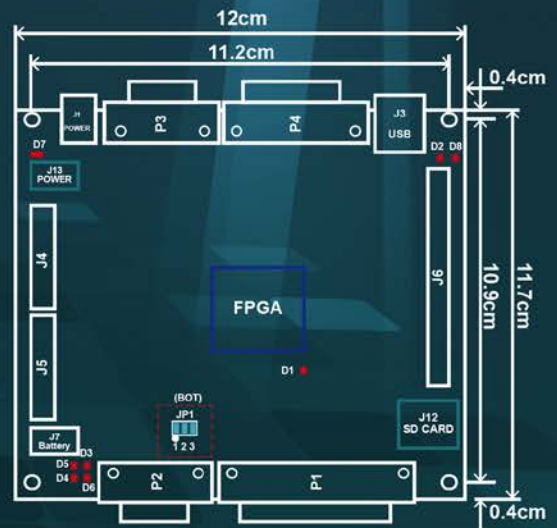
Feature

- ◉ Capable to mark auto text content at stand-alone mode.
- ◉ Capable to connect with Human-machine Interface. And easily connected to customized console supported by human-machine interface.
- ◉ Capable storage up to 16 files in SD card.
- ◉ Flexible to connect with PC as general laser marking controller.
- ◉ Compatible to USB port (Ver 1.1 or later). Capable connect to such as PC, tablet, notebook, workstation, or industrial computer.

Spec

- ◉ Size: 120mm × 117mm
- ◉ Power consumption: 5V 3A
- ◉ Built-in DSP, marking computing do not occupy computer CPU time.
- ◉ Provide one XY2-100 digital output signal within 10MHz refreshing rate.
- ◉ FPK, PPK, R05 first pulse suppression mode.
- ◉ 2 * 12-bits analog control signal.
- ◉ PWM maximum output frequency is 10MHz, minimum pulse width is $0.1\mu s$.
- ◉ Support stand-alone marking. Capable storage up to 16 files, which each of them contains up to 8 sets of auto-text and 8 types of font.
- ◉ One RS232 serial port for human-machine interface communication. (Mitsubishi FX2)
- ◉ Support one encoder input for mark-on-fly application.
- ◉ Support one pulse/direction signal output. The maximum output frequency is 2MHz.
- ◉ Provide extension port for connecting with various kinds of daughter boards.
  Support Windows XP/Vista/Windows 7.

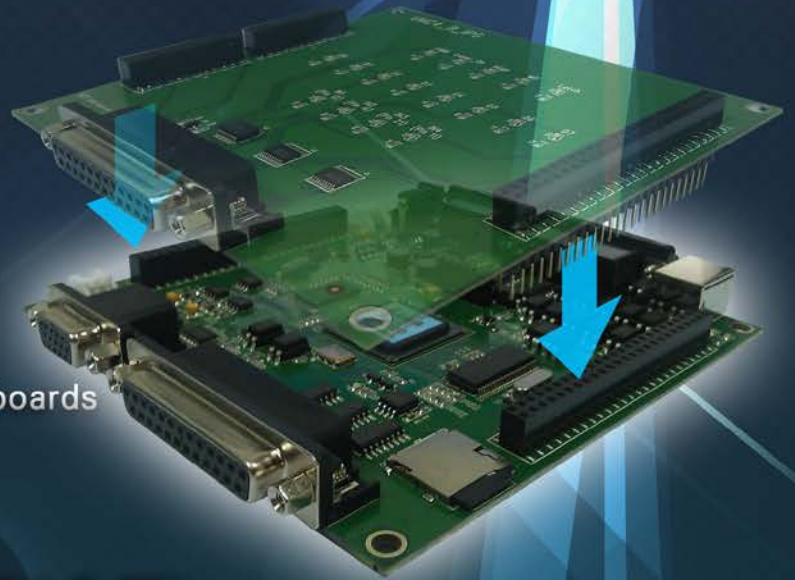興誠科技股份有限公司 **Eastern Logic Inc.**

UMC4 Laser Marking Controller

Various kinds of daughter boards

一、 Instructions

UMC4 support various kinds of daughter boards. For several types of laser are complex in wiring, just have to connect directly to the mounted daughter board to complete wiring easily. Besides, UMC4 also support motion daughter board.

二、 Features and views of daughter boards

1.UMC4-B-SPI

Support to connect with SPI G3/G4 laser
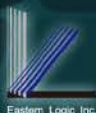
2.UMC4-B-IPG

Support to connect with IPG D/D1 laser

3.UMC4-B-Motion-SPI

Support to connect with SPI G3/G4 laser, 3 * pulse/direction signal, 3* encoder input(include index input), 3 * ±Limit,Home,InPositionsignal, and 16 I/O

4.UMC4-B-Motion-IPG

Support to connect with IPG D/D1 laser, 3 * pulse/direction signal, 3* encoder input(include index input), 3 * ±Limit,Home,InPositionsignal, and 16 I/O

UMC4 Laser Marking Controller

Derivative Applications-Simplification

UMC4 offline marking is the simplified marking application. First user need to acquire one UMC4 controller. Then perform following steps to easily trigger marking task from I/O panel.

Requested Component

Main Product

Editor

Laser marker   UMC4   External Switch   MMSA Software   PC

Step 1

Edit the desired graphic by MMSA software from PC
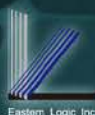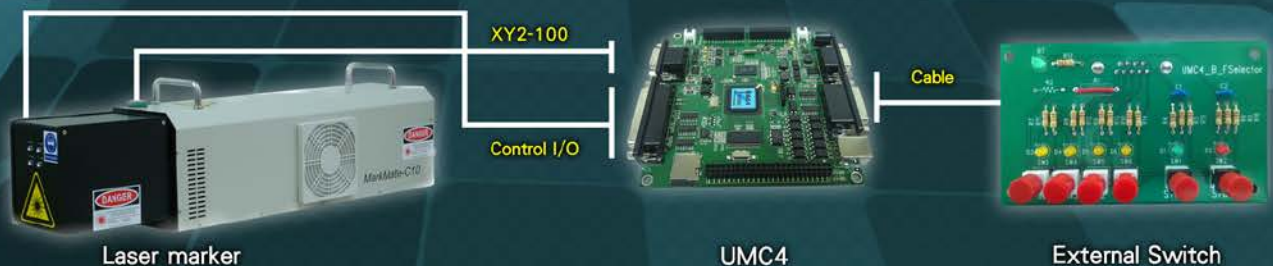
PC

Step 2

Download the graphic to UMC4 storage device by USB cable.

USB

UMC4   PC

Step 3

Connect the UMC4 which is storaged desired graphic to laser marker to trigger or choose marking task from external switch or I/O device.

XY2-100

Control I/O

Cable

Laser marker   UMC4   External Switch

UMC4 Laser Marking Controller

Derivative Applications-Innovation

UMC4 have broken through the traditional concept, provided PLC connection interface for Human-Machine Interface usage. By using Human-Machine Interface could easily accomplish control customization. Just need to connect UMC4 with Human-Machine Interface by RS-232 cable, and connect the UMC4 to laser, then user could start marking task from Human-Machine Interface.

Requested component

Human-machine interface

UMC4

Laser marker

Step 1

User could easily find someone writing control program by using Human-Machine Interface. Then connect Human-Machine Interface to UMC4. (There are various kinds of Human-Machine Interface for choosing. User could get them according to his/her requirements.)
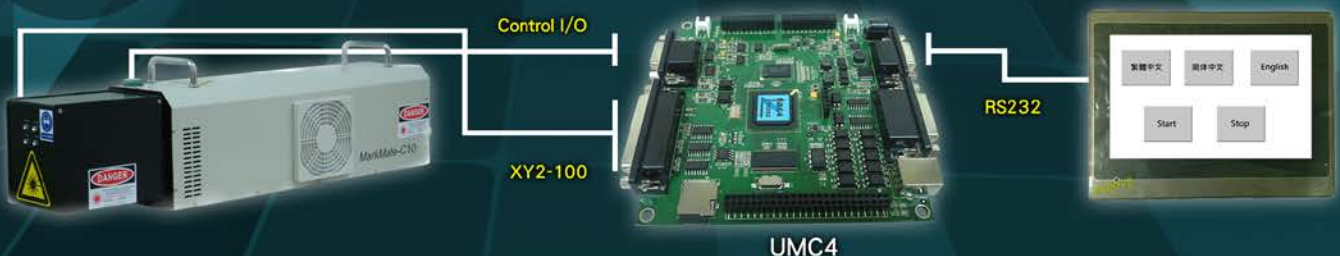
UMC4

RS232

Human-machine interface

Step 2

Connect UMC4 to laser to start marking task.

Control I/O

XY2-100

RS232

UMC4