MPC6565
Laser, 3-axis

MPC6565 is designed for the open-loop motion control system for the laser machine only. It is upgraded from MPC6535. Based on DSP and FPGA technology, the advanced velocity look-ahead and trajectory blending algorithm ensure the velocity invariableness and transition smoothness between any two-trajectory segments during the high speed X-Y continuous trajectory motion. And therefore the perfect smoothness and precision of the machining can be easily achieved.

Applications

Over 10-year experience in CO_2 (analog command) or RF (PWM command) tube compatible laser machine exclusively, open-loop motion control system

Features

- Both servo and stepper motor supported
- Break-point resume
- Pulse frequency up to 2MHz
- RS232 ModBus Protocol
- Data transferred by USB cable or USB flash drive

- 1-CH laser power on/off control output
- 1-CH laser PWM control output
- Up to 2-CH independent power analog output
- PWM preheat control
- Uncapping protection
- Flying-optics compensation

Laser Control Functionality

Motion Control
- High precision interpolation, circular interpolation resolution under 0.5 pulse

For CO_2 tube
- Laser ON, TTL compatible
- Laser power control: PWM, frequency or analog voltage (user select)

Power
- 24VDC, 2A

For RF tube
- Laser ON, TTL compatible
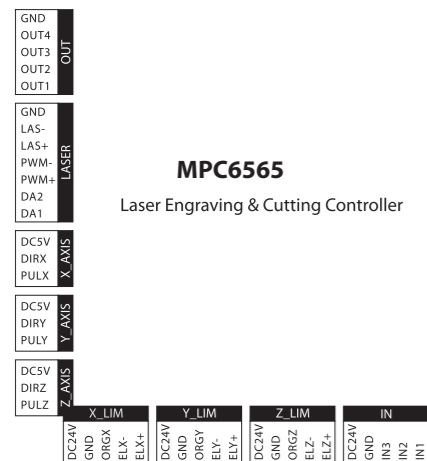- Q pulse signal, programmable duty and frequency

Software Environment
- Windows 2000/XP/VISTA/7/8/8.1/10 (32 and 64-bit)
- Bundled with application software, LaserCut5.3 or 6.0

Working Environment
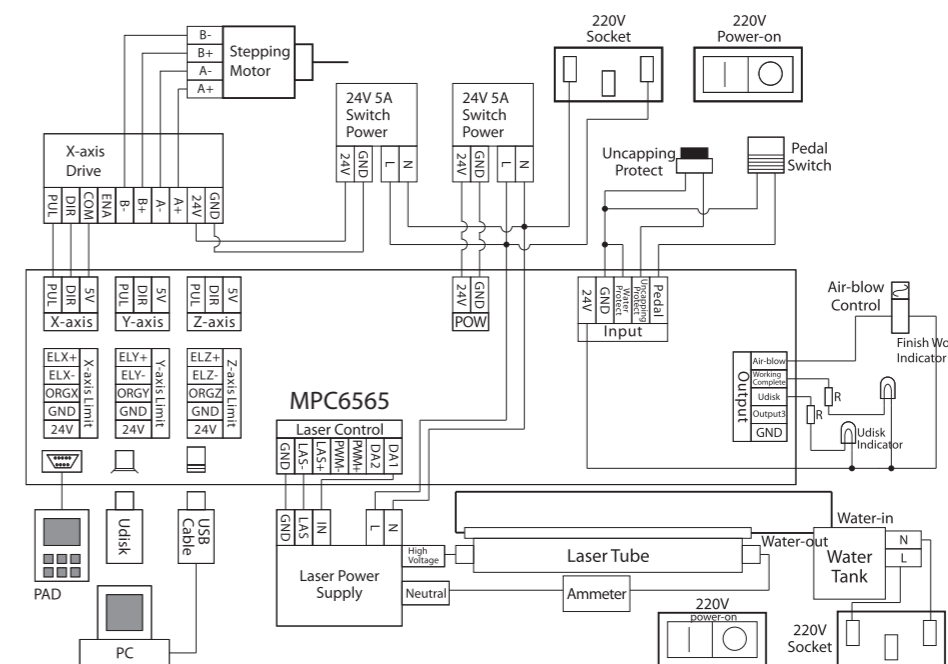- Temperature: 0-60°c
- Humidity: 5-90%, non condensing

The Connection Pin Definition

MPC6565
Laser Engraving & Cutting Controller

Group	Pins						
	1	2	3	4	5	6	7
Pow	+24V	24V GND	-	-	-	-	-
IN	Pedal Switch	Uncapping Protection	Water Protect	24V GND	+24V	-	-
Z_LIM	Z-axis+Limit	Z-axis -Limit	Z-axis Home	24V GND	+24V	-	-
Y_LIM	Y-axis+Limit	Y-axis -Limit	Y-axis Home	24V GND	+24V	-	-
X_LIM	X-axis+Limit	X-axis -Limit	X-axis Home	24V GND	+24V	-	-
Z_AXIS	Z-axis Pulse	Z-axis Direction	+5V	-	-	-	-
Y_AXIS	Y-axis Pulse	Y-axis Direction	+5V	-	-	-	-
X_AXIS	X-axis Pulse	X-axis Direction	+5V	-	-	-	-
LASER	Analog1	Analog2	PWM+	PWM-	+Fire Laser	-Fire Laser	Laser Power Supply GND
OUT	Air-blow	Finish Work	Udisk Indicator	Reserved	24V GND	-	-

A Typical Control System with MPC6565

MPC6565

Order List

Order Code	Model	Description	Qty (pc)	Approxi. Size (mm)	Net Weight(Kg)	Type
1011.00.301	MPC6565	Motion Control Board	1	225*135*40	0.54	Standard
1012.00.713	PAD03-E	Operation Panel, English	1	150*100*27	0.21	Standard
1012.00.900	C4-PAD03-1.5M	Cable connects MPC6565 and PAD03-E	1	Length 1500	0.13	Standard
1012.01.000	USB-AB-3M	USB Cable	1	Length 3000	0.13	Standard
1012.01.400	Dongle-WHITE	Software Key for LaserCut Software	1	55*18*8	0.01	Standard
1012.00.804	PAD04A-E	upgraded from PAD03-E, English	1	170*120*35	0.33	Optional
1012.01.005	COM-W4-2.5M	Cable connects MPC6565 and PAD04A-E	1	Length 2500	0.29	Optional