

DMX-X03

DMX Live And Stand Alone Controller



Summary

DMX-X03 is a full-color LED DMX control system which focuses on indoor and outdoor decorative lighting, which can be used stand alone or with computer. It comprises scene-edit software. You can edit various lighting effects by downloading the programme which edit according to your special requirement from your PC. This control system can fulfill 256 grey levels for each R,G,B color, totally 16.77 million real full-color. The software has been developed specially for architectural lighting and features easy to use effects which can be dropped onto timelines, along with multi-zone and synchronization allowing you to program a project with multiple rooms and areas with ease

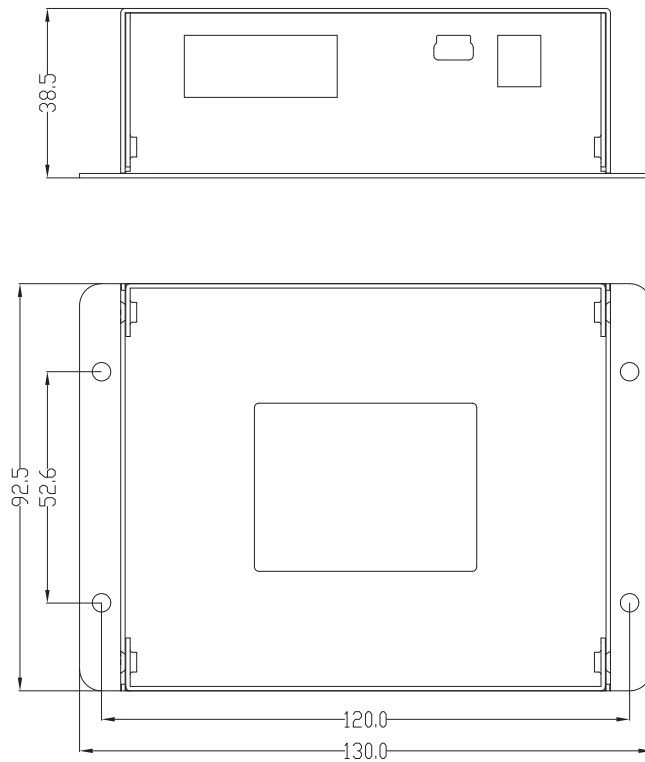
Product Features

- Meets DMX512/1990
- 1024 DMX Channels.Control 340 RGB Fixtures
- For adjusting the full-color ,tunable white and brightness
- Real time clock and calendar for time triggers
- USB connectivity for programming and control
- Various Output Interface, XLR-3 / RJ45
- 128M Micro SD card for stand alone use,support 8G MAX
- 4 Dry Contact Triggers (on RJ45)
- Support third party 485 protocol trigger
- Master/slave mode, connect up to about 50 pcs by Ethernet
- Touch screen operation

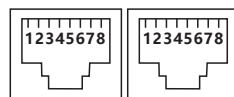
Technical Parameters

Input Voltage :	5V DC, 0.15A-1A (by USB) / 12V DC input on DC connectors
Power Consumption :	< 2W
Connection :	USB 2.0, Ethernet
Output connector :	XLR3, RJ45
Transmission signal :	DMX512 (1990)
Output channels :	1024 DMX channels
Stand Alone mode :	1024 DMX channels
Lamp type :	Wallwashing light, Tube light, Cube light,etc.
OS Requirement :	Windows XP/Vista/Seven/Win10 32/64 1Ghz CPU, 512 MB RAM
PC Software :	Euchips X-DMX
Environment :	IP20, -25 °C to 70 °C
Power supply mode:	WHEN DMX-X03 works independently, 12V power must be used. Usb power supply will be insufficient and normal operation will be impossible

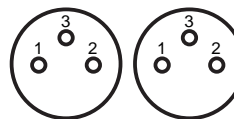
Dimension(mm)



Top Face Of Interface

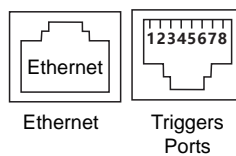


Pin1 : Data+
Pin2 : Data-
Pin7 : GND
Pin8 : GND



Pin1 : GND
Pin2 : Data-
Pin3 : Data+

Behind Face Of Interface

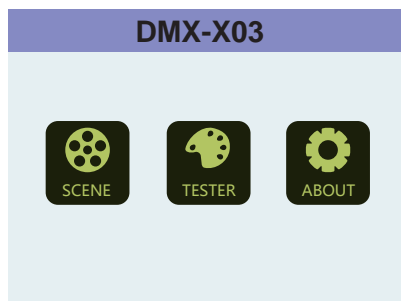


Dry contact
Pin3 : Trigger 04
Pin4 : Trigger 03
Pin5 : Trigger 02
Pin6 : Trigger 01
Pin7 : GND

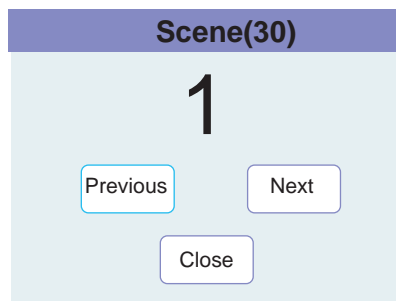
485 Trigger
Pin1 : Data+
Pin2 : Data-
Pin8 : GND

LCD Interface introduction

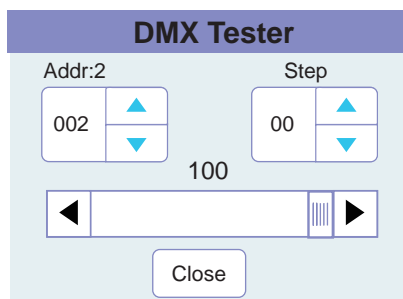
Main Menu



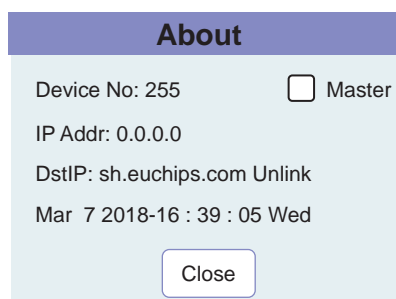
Scene



Tester



About



Default Mode

Note : factory default setting with 30 kinds of product models , the following scenes will be covered.

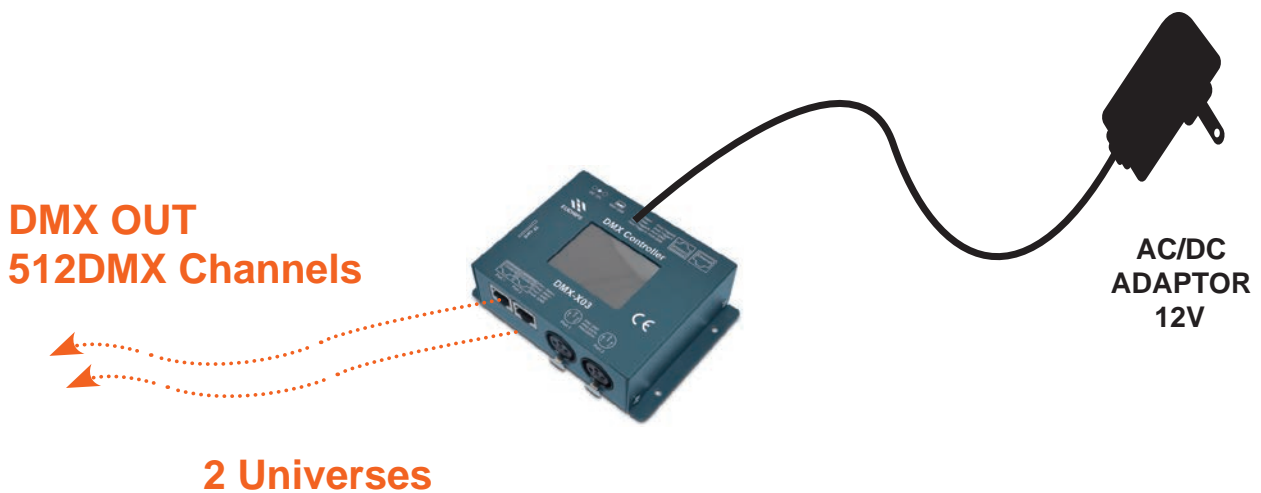
if use software to edit and download it ,

NG.	Mode	NG.	Mode
1	Red	16	Six color flash
2	Green	17	RGB flash
3	Blue	18	RG flash
4	Yellow	19	RB flash
5	Cyan	20	GB flash
6	Purple	21	R flash
7	White	22	G flash
8	Seven color fade	23	B flash
9	Full color fade	24	Seven color strobe
10	Rainbow changing	25	Six color strobe
11	Water flowing	26	RGB strobe
12	Tail chase	27	RG strobe
13	Color stack	28	RB strobe
14	Chase(Blue,Purple)	29	GB strobe
15	White flash	30	White strobe

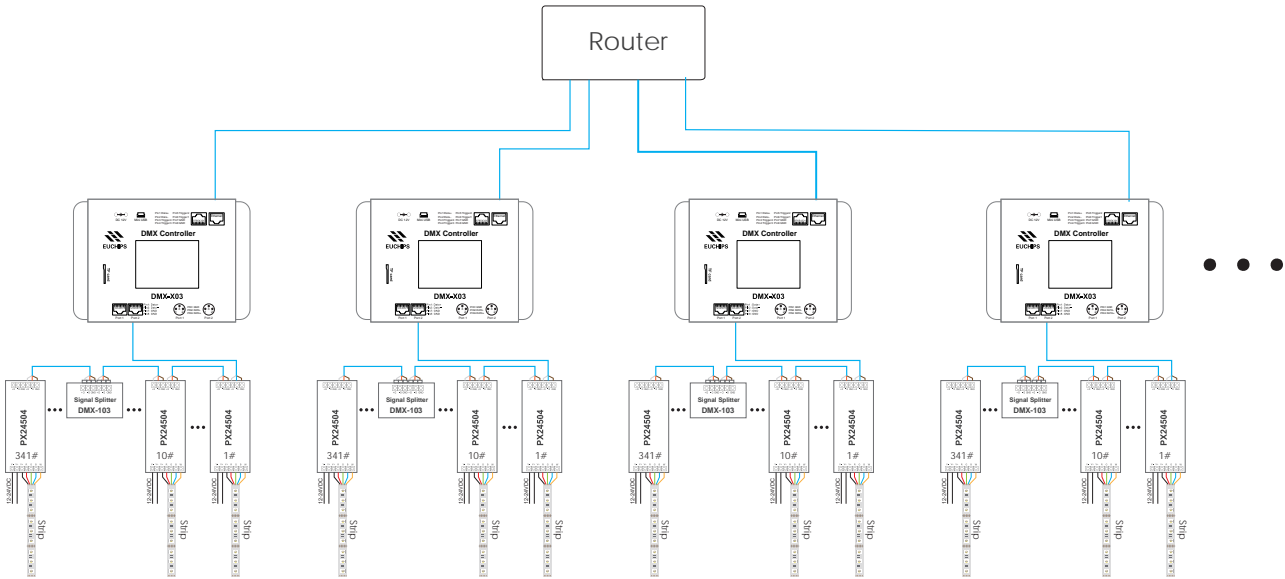
Live Use With Computer



Stand Alone Use



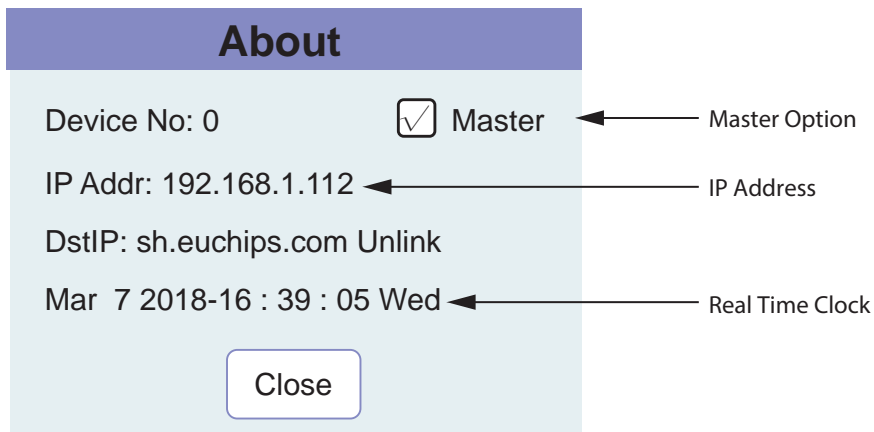
Master/slave Mode



Configuration of the master/slave

When multiple devices are cascaded, all devices need to be connected to the same local area network (i.e., the same router) with network cables. Each device will automatically acquire an independent IP address in the local area network. as shown in the following figure, you can see in the about interface, when all the IP addresses of the devices are acquired, you can select any one of the devices to set as the master (with the master option), and the other devices will be set as the slave control by default. the master will trigger the operation and then pass it to the slave control. However, the split control is out of sync with the master control when controlling the scene to be played by itself. Therefore, the sub-control can start and play different scenes. The main controller is like an ordinary remote controller to control other sub - controllers.

Note: when setting up the master control on the LAN, only one of them can be selected as the master control, and not more than one can be selected at the same time.



RS485 trigger function

1. RS485 bus triggering scene function

The third party device can control the device through the RS485 bus. Baud rate: 9600, no check, 1bit stop.

Receive and send names using fixed length commands, length 15Byte.

1.1 Bus support command

Serial number	Command	OP Code	Description	Memory function
1	Return value switch	0x01	Set whether DMX - x03 has ACK	NVM, Memory function
2	Resume\Pause	0x02	Pause playback and resume playback	RAM, Boot defaults to continue
3	Scene call	0x03	Scene call	NVM, Memory function
4	ON\OFF control	0x04	On / off control	RAM, Default ON
5	Get \ set device number	0x05	Stand-alone connection settings	NVM, Memory function

NVM: Nonvolatile memory, power down memory; RAM: Loss of memory, power failure to enter the default state;

1.2 485 Bus command format

->DMX-X03

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	SubCMD	Para0	Para1
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
Para2	Para3	Para4	Para5	Para6	Para7	CRC	

<-DMX-X03

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	ACKCMD	SubCMD	Para0	Para1
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
Para2	Para3	Para4	Para5	Para6	Para7	CRC	

Device NO: 0xFF, Broadcast ALL Device;

Check Sum the calculation function is as follows:

unsigned char CRCCalc(void* DataBuf,unsigned char Length)

```

{
    u16 i;
    u8 sum, CRCValue;
    sum = 0;
    for(i = 0; i < Length; i++) {
        sum += *((u8*)DataBuf+i);
    }
    CRCValue = -sum;
    return CRCValue;
}

```

1.3 RS485Bus command description:

1.3.1 Return value switch command (0x01) :

CMD:0x01

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	SubCMD	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

CMD: 0x01, SubCMD: 0x00, ACK OFF, 0x01, ACK ON;

ACKCMD: 0x81

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	ACKCMD	Status	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

Status: 0x0 CMD Failure, 0x01 CMD Success

1.3.2 Resume\Pause command (0x02) :

CMD:0x02

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	SubCMD	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

SubCMD: 0x01 Suspend, 0x00, Run

Without Memory function, default status is run, after power on

ACKCMD: 0x82

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	ACKCMD	Status	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

Status: 0x0 CMD Failure, 0x01 CMD Success

1.3.4 ON\OFF control (0x04) :

CMD:0x04

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	SubCMD	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

SubCMD: 0x00 ON, 0x01 OFF Without Memory function, default status is ON, after power on

485 command attention

The 485 instruction jump scenario is sent in broadcast mode by default.

If change the device number, please look at the 485 bus command instructions to get/set device number (0 x05) instructions.

Change after the Device number can check Device in the About No number, a controlled Device if separate jump scene Byte3 byte into a corresponding

Device No value (hexadecimal) and recalculate the CRC check code. Calculating a checkmark error does not trigger the scenario that requires a jump. The absence of Device No does not trigger the scene requiring a jump.



ACKCMD:0x84

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	ACKCMD	Status	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

Status: 0x0 CMD Failure, 0x01 CMD Success

1.3.5 Get \ set device number (0x05) :

It is used when a single machine is connected, and is used for setting equipment numbers, so that different equipment can be distinguished when multiple machines are used together.

CMD:0x05,

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	SubCMD	Para0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

Device No:0xFF, Broadcast or specify equipment number modification;

SubCMD:

0x00 : Get device number, Para0: 0x00

0x01: Set device number, Para0:Device number

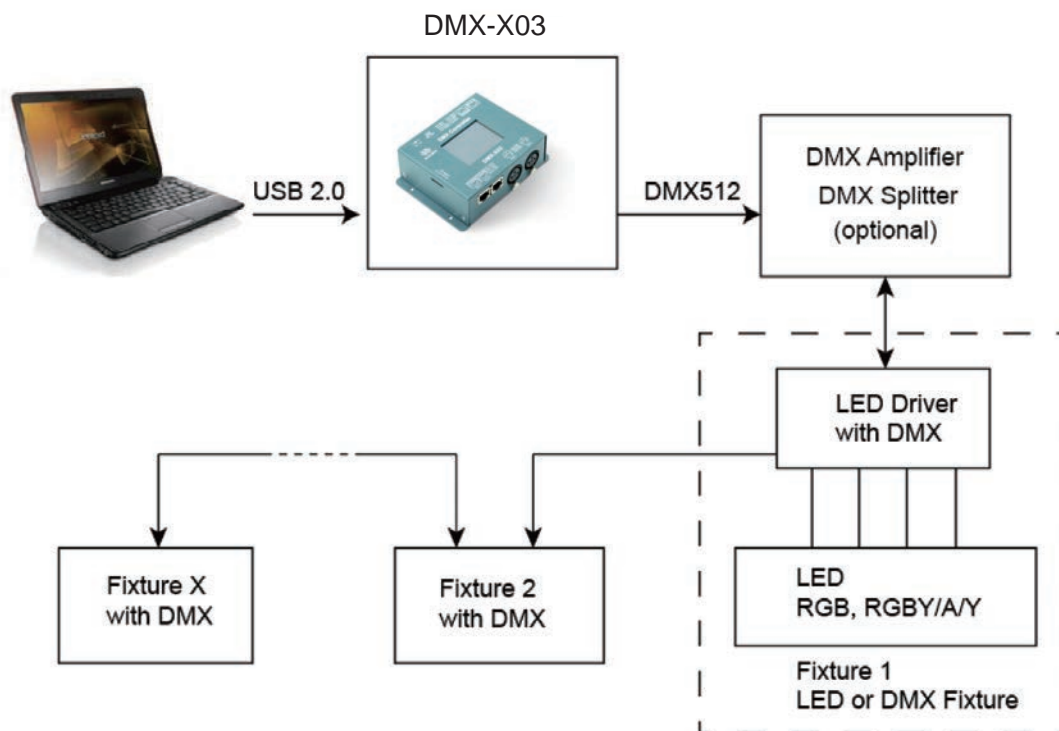
ACKCMD:0x85

Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
'E'	'U'	Device code	Device No	CMD	Status	0	0
Byte8	Byte9	Byte10	Byte11	Byte12	Byte13	Byte14	
0	0	0	0	0	0	CRC	

Status: 0x0 CMD Failure, 0x01 CMD Success

Device NO:Updated Device NO

Recommended DMX512 Installation



Software

EuchipsX-DMX has evolved over the years for architectural lighting control. It only requires a few minutes to setup the software and gain full control of any kind of lighting.

