DMX512+Switch Quantity+RS485_232+MIDI Conversion Module Instructions

(VersionV1.1）

1. Product Introduction:

This product series is mainly used in professional stage lighting control and switch signal/serial RS485/232/MIDI command communication interconnection conversion control; it supports DMX512 protocol, Modbus RTU protocol, serial port custom protocol, MIDI command protocol, RS485/232/MIDI command and other parameters can be connected to the computer configuration tool software through a USB data cable for visual programming customization, and downloaded and saved to the device.

Use of this productUSB driver-free connection to computer configuration tool software to achieve visual configuration of the device, which is very convenient for engineers toremoteImplement configuration device (The equipment can be operated without traveling, while most traditional equipment requires professional technicians to go on site to directly operate the equipment buttons and settings), greatly improving economic benefits; this product also supports USB online firmware upgrade function, users can upgrade to the latest version by themselves.

This product series provides a variety of model versions to choose from according to different functional applications.

two,Description of functional modules supported by each model:(Upgrade V1.3)

1	model:**SW-Uart**(Note: switch quantity --> convert to RS485/232)
	(1) Support 3-way sensor switch signal --》Convert to RS485/232 custom command to control serial port device. (2) Support RS485/232 networking to collect switch signal.
2	model:**SW-UartMiDi**(Note: switch quantity --> convert to RS485/MIDI)
	(1) Support 3-way sensorsSwitching quantitySignal--》Convert to RS485/232/MIDICustom commands control serial port devices. (2) Support RS485/232 networking to collect switch signals. (3) Support RS485--》ConvertMIDIControl musical MIDI interface devices.
3	model:**DMX-Uart**(Note: DMX512《--bidirectional conversion-》RS485/232 + Record 6 static DMX scenes)
	(1) Support DMX512--》convert to RS485/232 custom commands to control serial port devices. (2) Support DMX512--》convert to RS485/232 custom DMX channel byte stream, so that other devices can collect DMX channel values and receive control or monitor lighting control console DMX channel data. (3) DMX512--》RS485/232 mode, supports reading and collecting DMX512 channel values to control devices through commands. (4) Support RS485/232--》convert to DMX512 to control professional stage lighting equipment.
4	model:**DMXSW-Uart**(Note: DMX512《-bidirectional conversion-》RS485/232 + Switching quantity --> DMX512/RS485/232+ Record 6 static DMX scenes)
	(1) Support DMX512--》convert to RS485/232 custom commands to control serial port devices. (2) Support DMX512--》convert to RS485/232 custom DMX channel byte stream, so that other devices can collect DMX channel values and receive control or monitor lighting control console DMX channel data. (3) DMX512--》RS485/232 mode, supports reading and collecting DMX512 channel values to control devices through commands. (4) Support RS485/232--》convert to DMX512 to control professional stage lighting equipment. (5) The switch trigger output has been bound to the recorded DMX512 scene.
5	model:**DMXSW-UartMidi**(Note: DMX512+switch quantity "--bidirectional conversion" RS485/232/MIDI + Record 6 static DMX scenes)
	(1) Support DMX512--》convert to RS485/MIDICustom commands control serial or MIDI devices. (2) Support DMX512--》convert to RS485 custom DMX channel byte stream, so that other devices can collect DMX channel values to receive control or monitor lighting console DMX channel data. (3) DMX512--》RS485 mode, supports reading and collecting DMX512 channel values to control devices through commands. (4) Supports RS485--》to DMX512 to control professional stage lighting equipment. (5) Support RS485--》ConvertMIDIControl musical MIDI interface devices. (6) Support 3-way sensorsSwitching quantitySignal--》Convert to RS485/MIDICustomized commands control serial ports and MIDI devices. (7) Support RS485 networking to collect switch signals. (8) The switch trigger output has been bound to the recorded DMX512 scene.
6	model:**DMX-UartMB**(Note: DMX512《--bidirectional conversion-》RS485/232, +Modbus RTU + Record 6 static DMX scenes)
	(1) Support DMX512--》convert to RS485/232 custom commands to control serial port devices. (2) Support DMX512--》convert to RS485/232 custom DMX channel byte stream, so that other devices can collect DMX channel values and receive control or monitor lighting control console DMX channel data. (3) DMX512--》RS485/232 mode, supports reading and collecting DMX512 channel values to control devices through commands. (4) Supports RS485/232--》to DMX512 to control professional stage lighting equipment. (5) Support ModBus RTU--》convert to DMX512 to control professional stage lighting equipment. (6) Support DMX512--》convert to ModBus RTU acquisition control.
7	model:**DMXSW-UartMidiMB**(Note: all-round type)

	(1) Support DMX512--》convert to RS485/MIDICustom commands control serial or MIDI devices. (2) Support DMX512--》convert to RS485 custom DMX channel byte stream, so that other devices can collect DMX channel values to receive control or monitor lighting console DMX channel data. (3) DMX512--》RS485 mode, supports reading and collecting DMX512 channel values to control devices through commands. (4) Supports RS485--》to DMX512 to control professional stage lighting equipment. (5) Support RS485--》ConvertMIDIControl musical MIDI interface devices. (6) Support 3-way sensorsSwitching quantitySignal--》Convert RS485/MIDI custom commands to control serial ports and MIDI devices. (7) Support RS485 networking to collect switch signals. (8) Support ModBus RTU--》convert to DMX512/MIDI to control stage lighting and MIDI devices. (9) Support DMX512/switch quantity--》convert to ModBus RTU acquisition control. (10) The switch trigger output has been bound to the recorded DMX512 scene.

3. Hardware interface and characteristic parameters

1. Hardware interface:

(1) Dual power supply interface: supports voltage DC9V~24V (DC5.5*2.1 interface) + USB interface 5V. (2) 1 Micro USB driver-free communication configuration port, which can be connected to the configuration tool software to configure or upgrade the device firmware. (3) 1 upgrade setting function button.

(4) 1 RS485 and RS232 communication interface(Note: If MIDI function is enabled, RS232 is invalid). (5) 1 mode power indicator light (Red and green), 1 serial communication signal indicator light (Yellow Greencolor).

Mode/Power Indicator:

Red indicator: RS485/232---> to DMX512 mode Green indicator: DMX512---》RS485/232 mode(Default mode) (6) 1-channel MIDI signal output interface (Note: Only models with MIDI function are effective).

(7) 1 DMX512 interface supports 512 channel output and input (bidirectional)(Note: only available for models with DMX512 function) (8) 3 switch input ports with optocoupler isolation(Note: only available for models with switch input)(9) Appearance and structural dimensions: L81mm*W50mm*H31mm (length*width*height), supports rail installation, as shown below

2. Characteristic parameters:

(1) Serial port characteristic parameters: default baud rate = 115200, 1 start bit, 8 data bits, 1 stop bit; support

Support baud rate range 2400bps ~1000000 bps, serial port supports setting slave address code: 1~254. (2) DMX512 interface: support setting DMX512 address code, support 3 DMX channel control modes: 1/2/4 channel

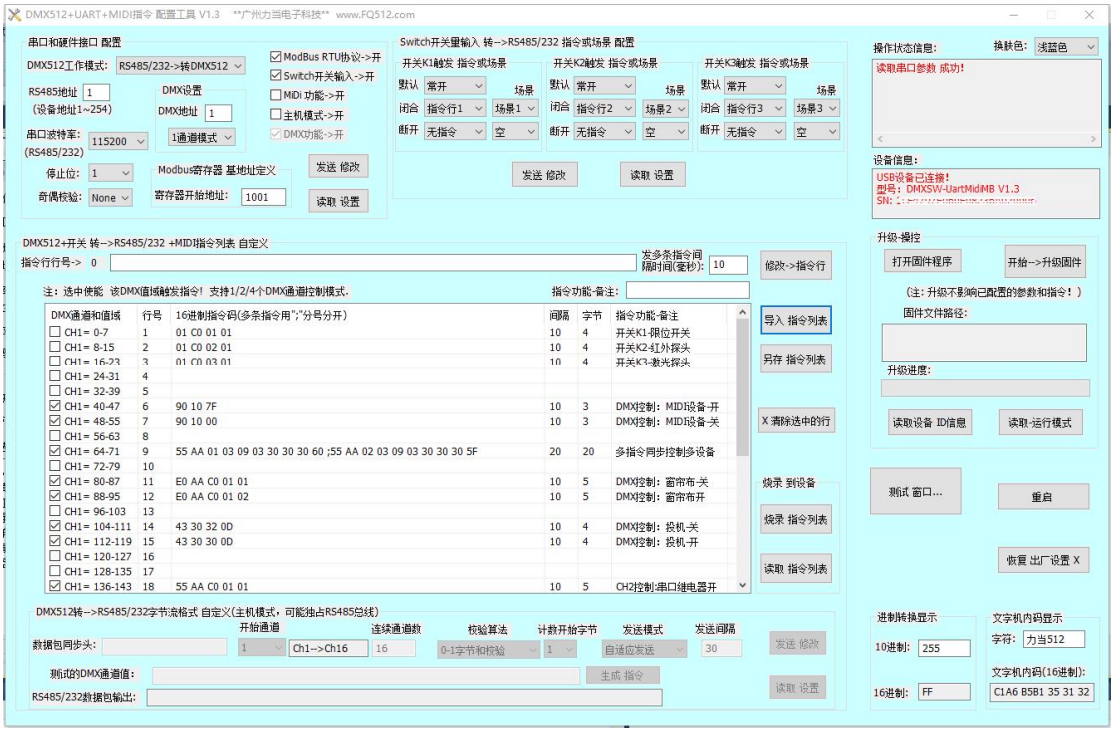
Tao Mode(Note: Models with DMX512 function are valid and support recording and calling 6 static scenes). (3) ModBus RTU: Support register base address redefinition(Note: This is only available for models with Modbus function)

(4) Supports editing of custom RS485/232/MIDI commands.

(5) Serial communication protocol: Please refer to the LiDBus and Modbus protocol descriptions supported by this device.

After purchasing this series of equipment, please ask our company for it.

(6) All functional parameters can be visually configured through the configuration tool software. The software interface is shown in the figure below.



3, Interface identification description (identification as shown below):

(1) Power interface:POWER,Voltage range: DC9~24V **(2) USB configuration interface:**Micro USB communication + power DC5 V input **(3) RS485 interface:**D+/A=data positive+; D-/B=data negative-; **(4) RS232/MIDI shared interface(Choose 1 from 2):** GND=reference ground;

RS232:TX = transmitter; RX = receiver; GND = reference ground

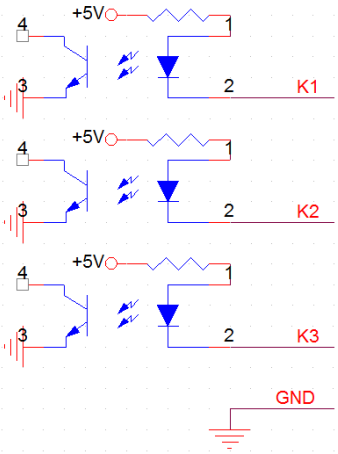
MIDI:T5=TIP=5th pin of MIDI port; R4 =Ring=4th pin of MIDI port

(5) Switching signal input terminal SW input:

K1:1st switch signal input

K2: Second switch signal input **K3:**

The third switch signal input



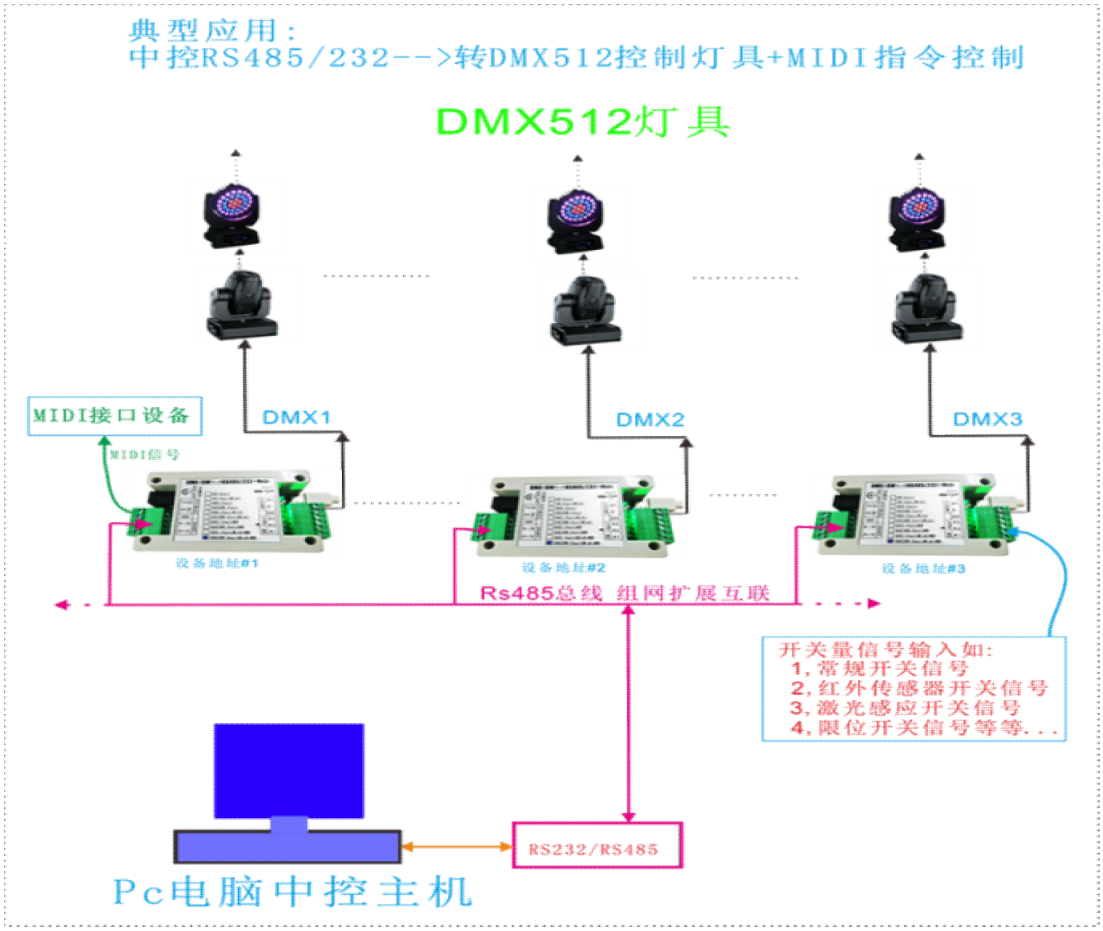
The internal optocoupler reference circuit is shown in the figure on the right:

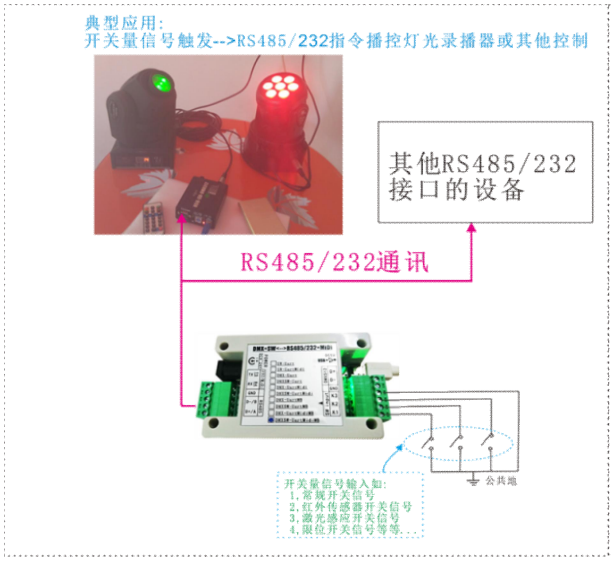
Please refer to the connection of various switch sensor signals.

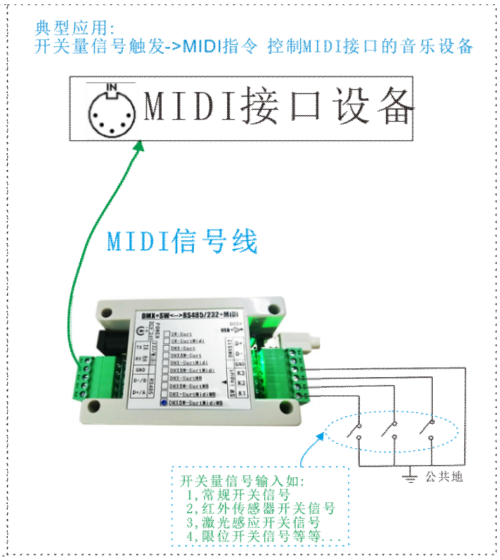
(6) DMX512 signal input/output (bidirectional) interface:

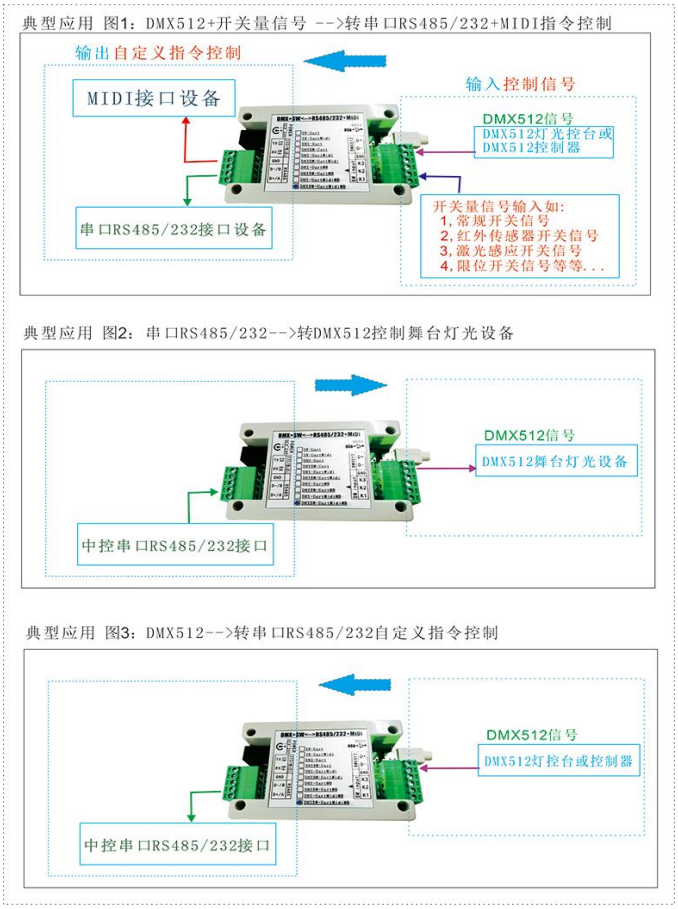
D+= signal positive;**D-**= signal negative; **GND**=reference ground;

4. Typical application system reference diagram:


典型应用：
中控RS485/232-->转DMX512控制灯具+MIDI指令控制
DMX512灯具
MIDI接口设备
MIDI信号
DMX1
DMX2
DMX3
设备地址#1
设备地址#2
设备地址#3
Rs485总线 组网扩展互联
开关量信号输入如:
1,常规开关信号
2,红外传感器开关信号
3,激光感应开关信号
4,限位开关信号等等...
RS232/RS485
Pc电脑中控主机


典型应用:
开关量信号触发-->RS485/232指令播控灯光录播器或其他控制
其他RS485/232
接口的设备
RS485/232通讯
开关量信号输入如:
1,常规开关信号
2,红外传感器开关信号
3,激光感应开关信号
4,限位开关信号等等...
公共地


典型应用:
开关量信号触发->MIDI指令 控制MIDI接口的音乐设备
IN
MIDI接口设备
MIDI信号线
开关量信号输入如:
1,常规开关信号
2,红外传感器开关信号
3,激光感应开关信号
4,限位开关信号等等...
公共地



DMX512+MIDIReference wiring:

5. Delivery items:

(1) Micro USB data cable (only 1 cable is provided if multiple : 1 item devices are used) (2) DC power terminal to DC5.5*2.1 connector: 1

6. Notes

(1) Non-professionals are not allowed to disassemble the casing;

(2) Do not use in a humid environment;

VII. After-sales Terms

From the date of purchase, this machine will1The warranty period is one year. After the expiration of the warranty period, the parts fee will be charged and the warranty will be provided for lifelong maintenance. Damage caused by human factors or force majeure is not covered by the warranty.