

CQ-CM42

DMX Light & Music 2-in-1 Controller



Welcome to the CQ-CM42 DMX Light & Music 2-in-1 controller. The controller is designed for DMX music light shows, music fountains, music light installations, sound and light synchronization control projects. Through computer software, you can control various DMX fixtures such as water pattern lights, beam lights, laser lights, LED flood lights, LEDs, RGB, RGBW, RGBWY, etc., as well as VARIOUS DMX devices such as DMX lifting balls and DMX fountains. The controller integrates DMX lighting control and music output, which can control DMX lighting equipment and synchronously output music, which is the control tool of music light show.

With the upgraded ESAPRO2 software, you can import music files and program them via a timeline to combine music and luminaires by referring to the music spectrum and inserting the appropriate lighting effects. The controller has offline automatic operation, APP control (Android / iOS), time trigger, UDP remote control, sensors, dry contact trigger and other functions, which greatly meets the control needs of various lighting and music devices. With our RDM management software, you can also set up your RDM luminaires remotely.

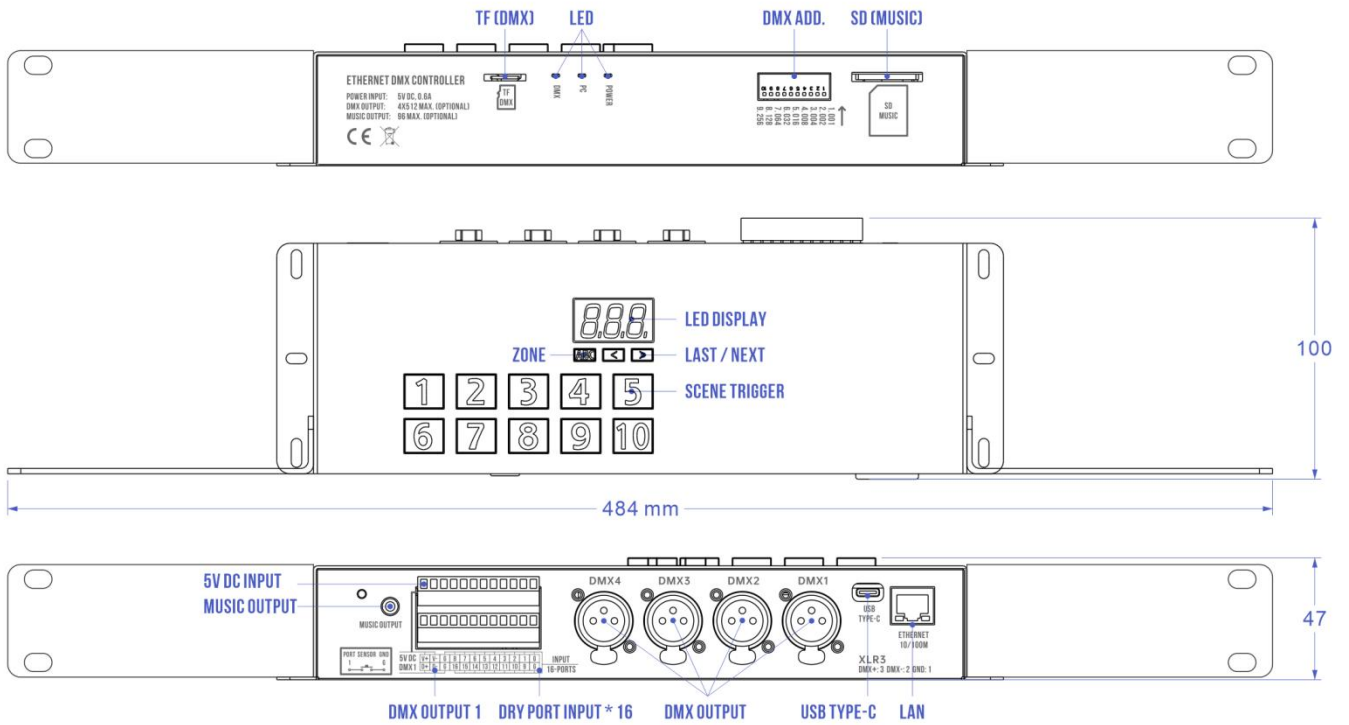
1. Features

- DMX light & music 2-in-1 synchronous output
- Import music, timeline programming
- DMX channels: 1019/1531/2043
- Compatible with LEDs, stage lights, laser lights, fountains (customized fixture library)
- Standard 3.5mm audio interface
- Music format: MP3, WAV
- Sample rate: 48KHz
- Power amplifier power: load 4 ohms, 3W
- 10 quick scene buttons, 3 scene buttons
- Windows / MacOS, programming, Android / iOS APP remote control
- Compatible with RDM remote device management
- Automatic run after power-on
- UDP remote control, dry contact, time trigger, TCA enhanced trigger, dry contact logic control
- 3 kinds of mounting structure: screw, DIN rail, 1U rack type

2. Specification

Power Input	5V DC (Screw Terminal) / 5V DC (USB)
Output Protocol	DMX512 / RDM
DMX Channels	1019/1531/2043
Number of Scenes	5 Zones, 99 Scenes
Number of Music	3 Folders, 96 Musics
Memory	TF Card (DMX) / SD (Music)
OS of Software	Win10, Mac, iOS, Android
Trigger	UDP Remote Control, Dry Contact, Time trigger, WiFi APP
Connection	USB, Ethernet
Temperature	0~50°C

3. Dimensions

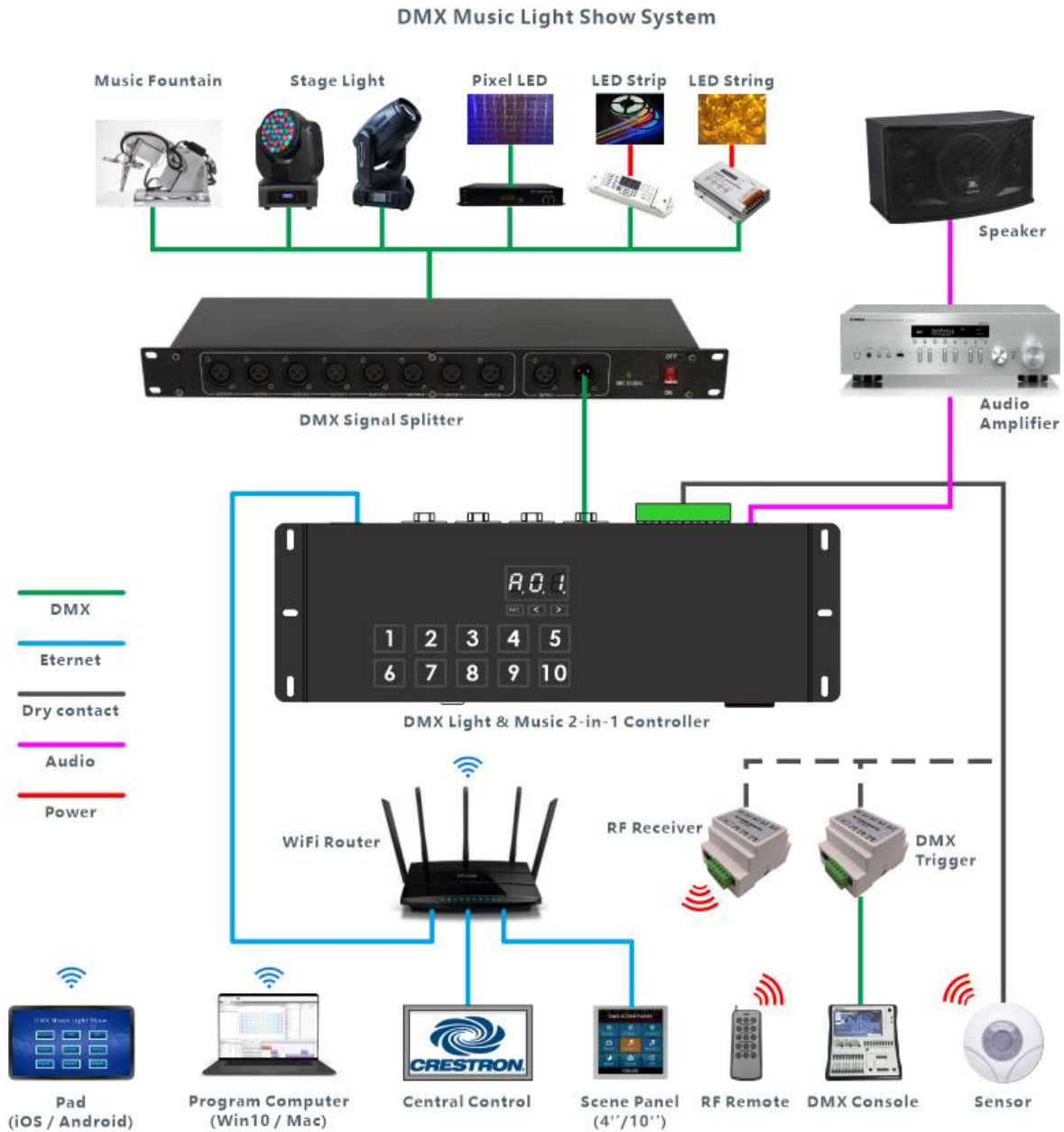


Model No.	DMX Channels	Number of Music	Installation Mode
CQ-CM42	1019	96	Screw / DIN Rail / 1U Rack
CQ-CM43	1531		
CQ-CM44	2043		

4. Wire Diagram

4.1 Program

By connecting the DMX lighting fixtures to the controller, connecting the controller to the computer (Win10/Mac) via USB or LAN, you can use the software to program the fixtures. The lighting fixtures can be directly controlled, real-time preview, output light control signal.



4.2 Stand Alone

In Stand Alone mode, the program has been downloaded to the TF card. No need a computer, when the power is on, the controller will replay of all pre-programmed lighting effects. In the stand alone mode, it can time trigger, dry contact trigger, sensor control, APP or UDP network control.

4.3 Central Control / Scene Panel / APP Remote Control

In stand alone mode, you can also connect the controller to the wifi router, control the scene through the central control host and the scene panel, or connect the central control system to link with other audio and video systems to achieve synchronous interpretation of sound.

5. Program Software

ESAPRO 2 (Win10 / MacOS) DMX Time Line Software

<http://www.cqiled.com/en/product/esapro2.html>

Arcolis Remote Pro (iOS / Android) Remote APP

<http://www.cqiled.com/en/product/easy-remote-pro.html>

RDM Manager (Windows / Mac)

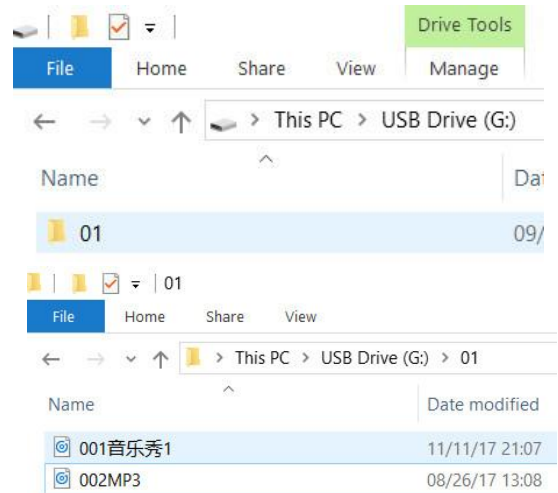
<http://www.cqiled.com/en/product/rdm-manager.html>

6. Sync Music

6.1 Music Files

1. Insert the SD card into the computer and create folders under the root of the SD card: 01, 02, 03 (32 songs can be saved per folder);

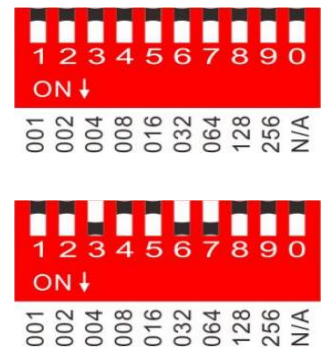
2. Copy the music file to the folders and add the number: 001, 002, 003 before the music file name... Example: 001-Show1.mp3, 002-Show2.mp3



6.2 DMX Address (Music)

DMX Music Player, use the DIP switch to set the DMX address. When the switch is down, you get the address code in its position. Add all the address codes together, which is the DMX address of the player.

Example: As shown in the figure, the switch 3, 6, 7 is down, representing the address: $4+32+64=100$. The DMX channel for this music player is 100.



6.3 DMX Channels of Music Player

Channel	Value	Function	Value	Function	Value	Function	Value	Function
1 Volume	0	Mute						
	1~255	Volume 1~100%						
2 Function	0~63	Stop						
	64~128	Pause						
	129~255	Play						
3 Music Folder 1	0	No Function	49~54	Music 9	103~108	Music 18	157~162	Music 27
	1~6	Music 1	55~60	Music 10	109~114	Music 19	163~168	Music 28
	7~12	Music 2	61~66	Music 11	115~120	Music 20	169~174	Music 29
	13~18	Music 3	67~72	Music 12	121~126	Music 21	175~180	Music 30
	19~24	Music 4	73~78	Music 13	127~132	Music 22	181~186	Music 31
	25~30	Music 5	79~84	Music 14	133~138	Music 23	187~192	Music 32
	31~36	Music 6	85~90	Music 15	139~144	Music 24	193~255	Loop
	37~42	Music 7	91~96	Music 16	145~150	Music 25		
	43~48	Music 8	97~102	Music 17	151~156	Music 26		
4	0~255	Music Folder 2						
5	0~255	Music Folder 3						

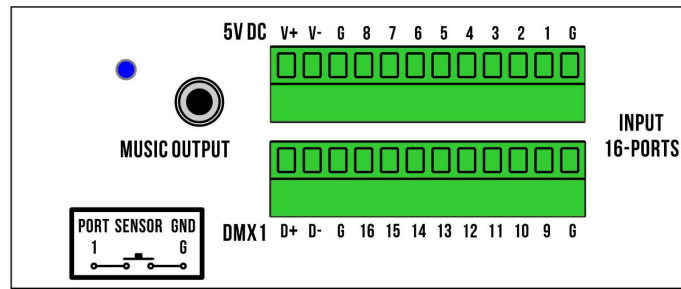
7. UDP Remote Control

CQ-CM42, For UDP network control, the requirements are as follows:

1. Static IP, you need to use Hardware Manager, set the controller to asStatic IP address;
2. UDP port: 2430
3. Protocol format: hexadecimal
4. Protocol content: 53697564693131410a01ffffffffffff01001b000103**01**0064

the last red 01 represents scene numbers, 00 is scene 1, 01 is scene 2, and 02 is scene 3

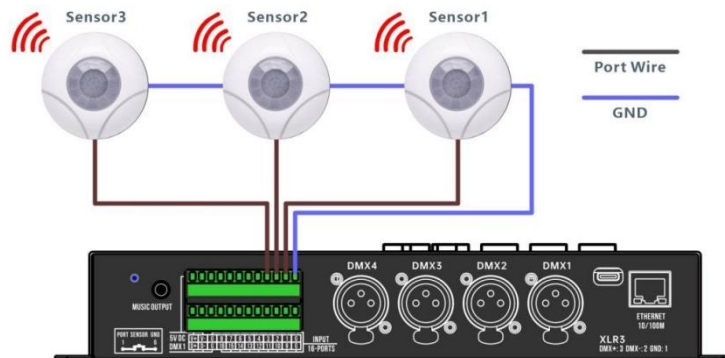
8. Screw Terminals



The green terminal on the back of the controller has 3 interfaces:

- **V+, V-:** Power Input, 5V DC, **Attention:** should be paid to polarity and should not be reversed; (The controller can be powered either by terminals or by USB);
- **D+, D-, G:** DMX1 Output port, same to the XLR3 (DMX1);
- **1-16, G:** Dry Contact Input port;

9. Dry Contact Trigger



The controller can trigger the scene via the dry contact. When using the function, connect the sensor's GND in parallel to the "port G" of the controller, and then connect each dry contact wire to the P1~P16 port. Dry contacts can be triggered individually or in combination. CQ-CM42, with enhanced TCA advanced trigger function, can be set by software, trigger logic, to achieve richer interactive control effects.

10. Attention

- If you want to time trigger, confirm that the battery (LIR 2032, 3.6V) is installed in the controller and pay attention to the positive and negative poles of the battery. If the battery is replaced, it is also necessary to use the Hardware Manager software for clock correction.
- Disable live wiring, wiring is completed, check that there is no short circuit, in order to power up!
- It is recommended that the DMX signal from the main controller be connected to the DMX signal amplifier first, and then connected to the DMX fixtures.