OUTDOOR/CONTROLLER

Technical Datasheet

STANDALONE CONTROLLER-8CH

WORKING ENVIRONMENT

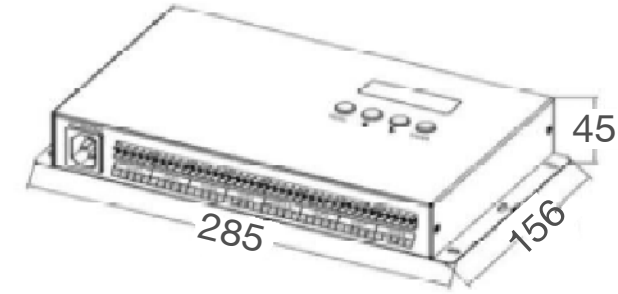
- Please do not install the controller in magnetic, high pressure, high temperature or seriously wet environment.
- Please do connect the earth safely in order to reduce risks of fire and damage which cause by short circuit.
- Please ensure AC100-240V power supply is used, and same polarity is connected between transformer and controller in order to guarantee the proper supply voltage.
- No waterproof function in the control system, please pay attention on rainproof and waterproof during installing.

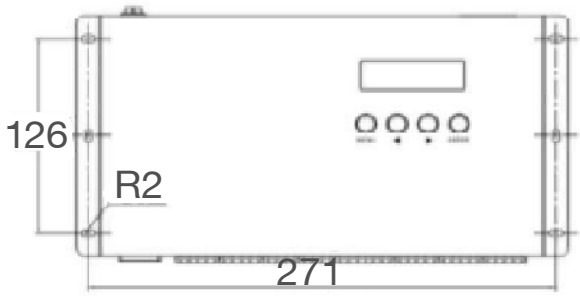
TECHNICAL SPECIFICATION

Cover Material	Iron
Operating temperature	-15°C ~ +60°C
Humidity	≤50% RH
Power consumption	<3W
Environment	IP20
Cascade signal	Optocoupler
Master controller signal	Ethernet protocol
Network interface	RJ45 Ethernet interface
Output signal	TTL & RS-485 * 8 channels
Control capacity	upto 154 Sub-controllers or 4,00,000 channels
Transmission distance	Use UTP (unshielded twisted pair) cable, distance between the controllers can be
Weight 1500gm	2050gm
Dimension	285mm(l) x 156mm(w) x 45mm(h)
Pixel driven	Single chip: 960 pixels ×8 channels, Single-wire: 1024 pixels ×8 channels, standard DMX512: 168 pixels ×8 channels, extensible DMX: 336 pixels ×8 channels, Break-point resume: 960 pixels ×8 channels.

CONTROLLER

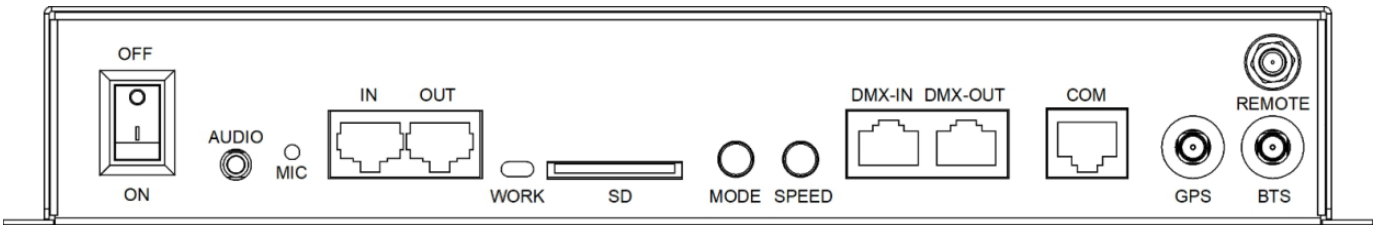
DIAGRAM (in mm)





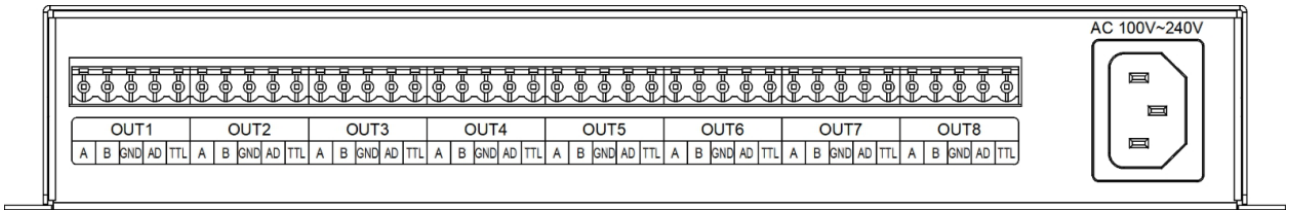
CONNECTION INSTRUCTIONS

INPUT IMPORT

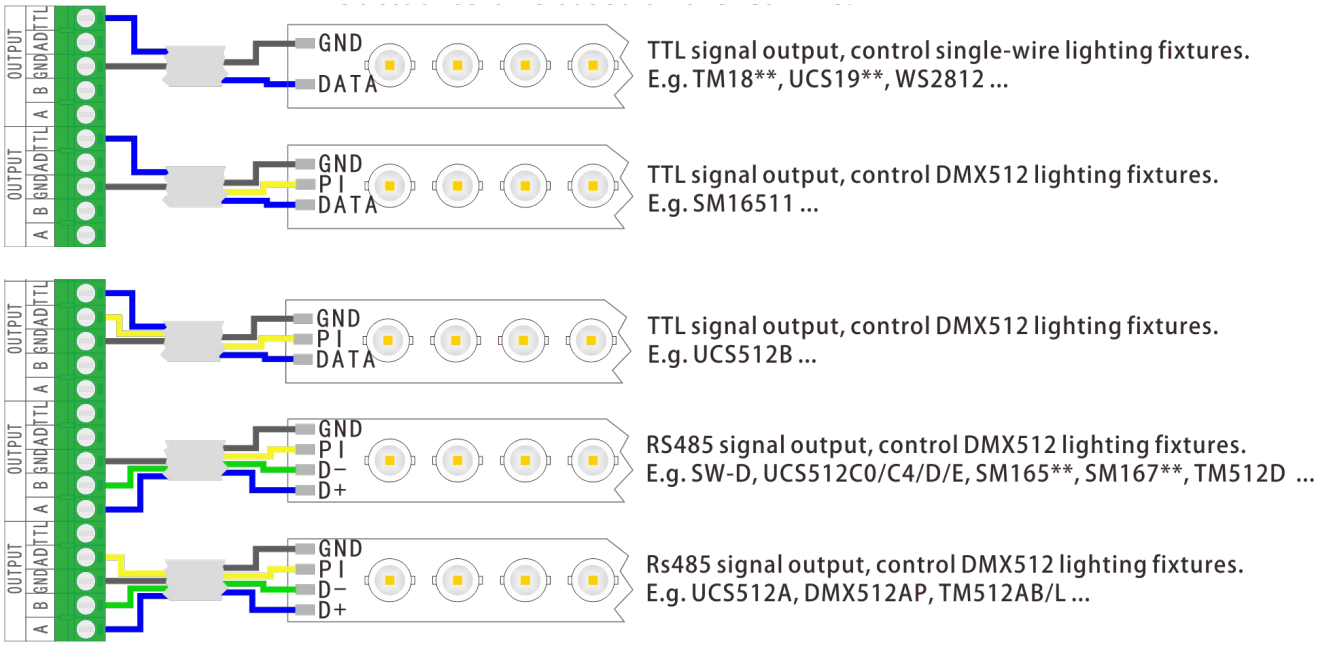


INTERFACE	FUNCTION
Audio	Audio input, connect with audio equipment.
In & out	Input / output of cascade.
Work	Working light, it flickers according to frame rate when working properly. No flicker indicates abnormal or non-working status.
SD	SD card slot.
Mode	Increment, use for changing effect.
Speed.	Set the effect speed.
DMX in & DMX out	Connect with DMX512 controller.
Com	Reserved interface. (Advanced application.)
Remote	Remote antenna interface. (Optional function.)
BTS	BTS antenna interface. (Optional function.)
GPS	GPS antenna interface. (Optional function.)

OUTPUT WIRING



CONTROLLER



SIGNAL CABLES CONNECTION CAUTIONS:

- Use UTP—Unshielded Twisted Pair (resistance per 100M<10Ω), low quality Ethernet cables, telephone cables and copper wires are unavailable.
- Use one group twisted pair, suggest green+green white or orange+range white. The quality and color of the cable are very important. Blue and brown wires greatly influence the signal transmission. Please don't use several groups of twisted pairs together.
- Controller signal output GND must connect directly with input GND of lighting fixture. Cannot connect with lighting fixture through power supply.
- Switch on the controller after all hardware signal and power cables are connected. Please don't CONNECT / DISCONNECT the signal cables while the controller is power on;avoid back-flow current burning circuit and components of output port.

TRANSMISSION DISTANCE:

Transmission Type	Signals	Medium	Distance (M)	Remark
Master control → slave control	RS-485	UTP-Unshielded Twisted Pair	50-100	
Master/slave control → SW lighting fixture	TTL	UTP-Unshielded Twisted Pair	30-50	
		Two core wire	5-30	
Master/slave control → Single-wire lighting fixture	TTL	UTP-Unshielded Twisted Pair	5-20	
		Two core wire	1-5	
Master/slave control → DMX lighting fixture	RS-485	UTP-Unshielded Twisted Pair	30-50	The address cable must be no more than 5m.
		Three core wire	1-20	
		Four core wire	1-20	
Master/slave control → SW lighting fixture Master/slave control → DMX lighting fixture	TTL	UTP-Unshielded Twisted Pair	5-20	Controllable pixels reduce if wire is over 5m.
		Two core wire	1-5	
		Three core wire	1-5	
Single-wire lighting fixture → Single-wire lighting fixture	TTL	UTP-Unshielded Twisted Pair	1-2	Controllable pixels reduce if wire is over 1m.
		Two core wire	0.1-1	

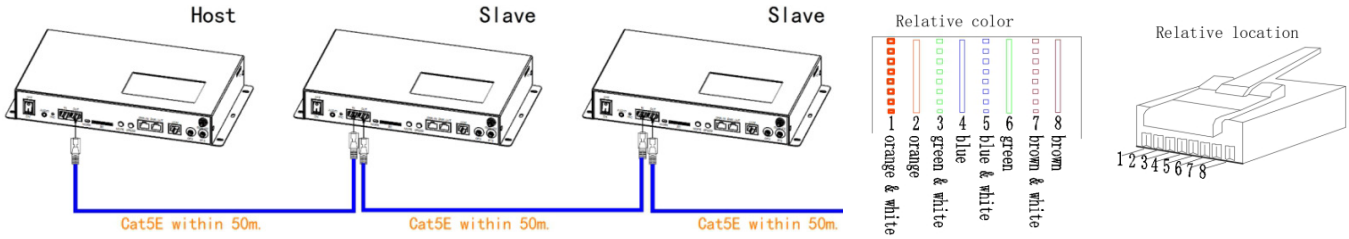
CONTROLLER

CASCADE CONNECTION

When the project needs to be controlled by multiple cascading controllers, connect the host with slave controllers by cables to make the whole project synchronous. The distance must be no more than 50M. (Add an AP100 in every 50m to enhance transmission signal.)

User can extend the cables based on real requirement (cable extension should follow T568B method).

Operation refers to the “CASCADE CONTROL” section.



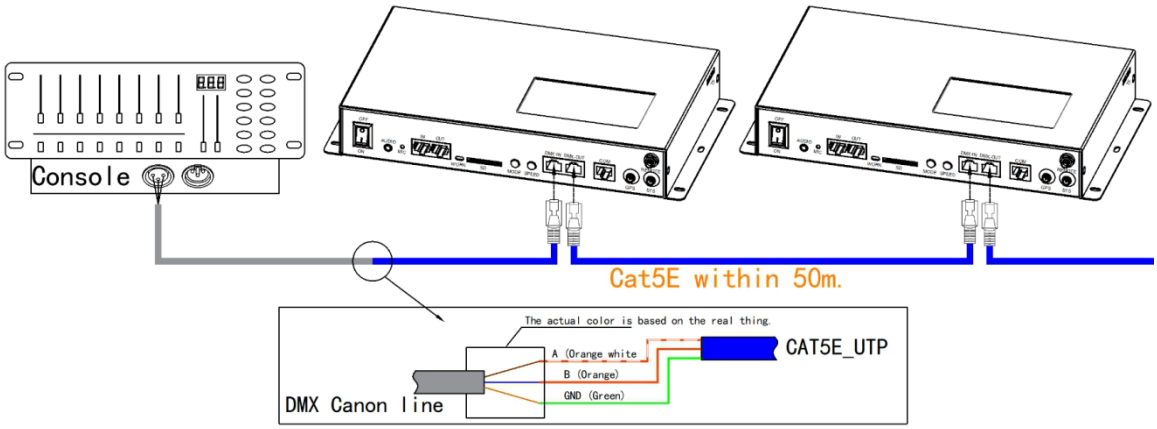
CASCADE CONNECTION

User can adjust the effect, speed and brightness by DMX512 console.

Connection:

P1 = GND, P2 = D-/B, P3 = D+/A

Operation refers to the “DMX512 CONTROL” section.



* The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract, unless otherwise agreed by Jaquar lighting solutions .Specifications are subject to change without notice. Errors and omission excepted, always make sure to use the most recent release.
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