

# Brighten Strobe Controller New

## 3STU Series

3LINH	Line scan illumination
3LINL	
3LIN	
2LINS	
2LIN	
2COXL	Structured light
2LINM	
SDL	
STL	
RN	
RNH	Ring illumination
SRN	
HPR	
FPR	
DML	
LFR	Shadowless illumination
3DM	
2DM	
LFX	
FPQ	
RIH	Bar illumination
DL	
3BRH	
2BR	
2BRS	
2BRM	Coaxial illumination
3COH	
3CON	
COXR	
3COX	
COPA	Multi-angle illumination
HSL	
2SL	
SL	
RNMU	
AOI	Back illumination
2FTB/2FTR	
FTC	
2FT/3FT	
2PFT/3PFT	
LIP	Waterproof illumination
IP	
IR	
UV	
Customized	
PS	Controller
PD	
2DRC	
3STU	
APC	
DPC	Lenses
2APC	
DPA	
2ACC	
2DPC	
Area scan	
Line scan	

- ◆ With brightening function, the luminous time is adjustable from 0 to 999us.
- ◆ With normal on function, the luminance is 0-100% adjustable.
- ◆ Easy to operate, manual control or use RS232 to control.
- ◆ High precision output, fast response, short time delay.
- ◆ Short-circuit protection and data storage function.



### → Control panel specification <LTS-3STU48200-4>

No.	Parameter	Specification
1	4 digital tube	Display channel number, percentage, lighting time (0-999us)
2	Button	Adjust channels and percentage when internal trigger, adjust channels and lighting time when external trigger.
3	External trigger signal input interface	Input external trigger signal, to control the light strobing
4	Serial port communication	Connect to PC, remote operate controller
5	Light interface	connect the light
6	Power switch	on/ off controller power
7	Camera synchronous trigger signal output interface	The 12V output pulse signal is synchronized with the output signal of the light, can trigger camera shooting
8	Internal / External trigger mode switch	Move switch up, controller is under external trigger mode, move switch down, controller is under internal trigger mode ( Normal on mode)
9	Rising edge / failling edge trigger switch	Move switch up, rising edge trigger, move switch down, failling edge trigger
10	AC input interface	input AC100-240V

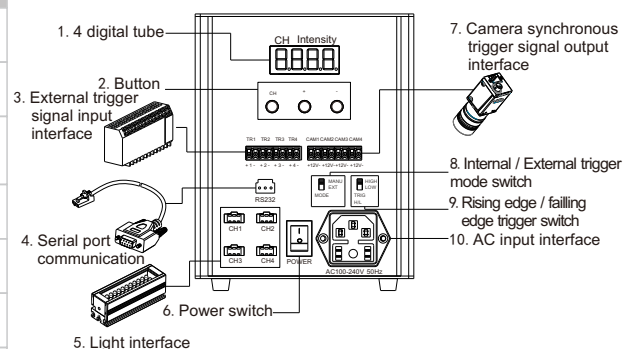
Connection step :

Step 1: connected the light and controller (Reference to the picture on the right).

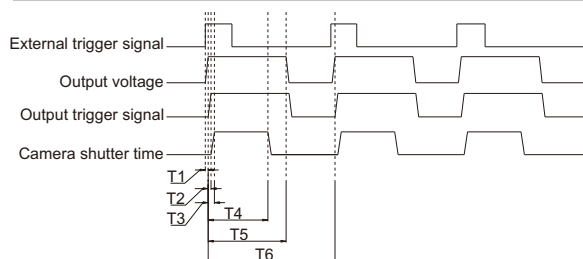
Step 2: external trigger signal connected to external trigger signal input interface of controller, camera synchronous trigger signal connected to camera synchronous trigger signal interface of controller, when need to trigger camera.

Step 3: If need to control the luminance by PC, please connect the PC with controller by RS232 data line in the power off status, then control by our demo program or the program you write yourself. Can set-up the each channel parameter manual when operated by serial port mode. That's to say, the upper computer and controller all can set-up the parameter.

Step 4: connect power (AC100-240V 1.5A), press the red switch "-", indicator light up, "o" uplifted, power on.



### → Sequence chart

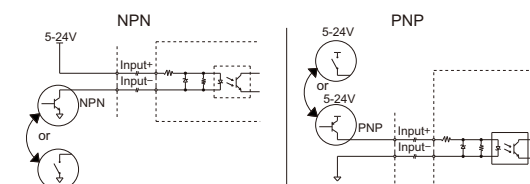


The controller get the external trigger signal, then delay time  $T1 \leq 2\mu s$ , the light on. The lighting time is the set-up time on the controller panel, T5 on the sequence chart,  $T5 \leq 999\mu s$ . To send a signal to trigger the camera or external device after  $T2 \leq 2\mu s$  delay time of the light on. The camera can delay  $T3 \leq 30\mu s$  to shoot, the photos on this moment have highest luminance. Light off after camera shoot over and the light lightening time constantly T5, then the one working period was accomplished. The twice trigger time interval is more than 1.42ms.

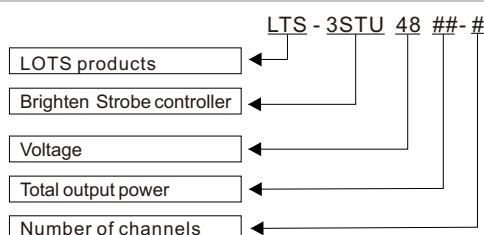
### → Mode set-up

Working mode	Control method
Internal self-trigger mode / external trigger mode	Control by toggle switch ( mode )
Rising edge trigger / failling edge trigger	Control by toggle switch ( TRIG )

### → Wire connection method of the external trigger signal



### → Coding Rule



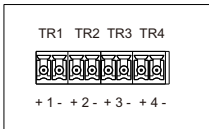
<http://www.lotsmv.com>

# Brighten Strobe Controller

## 3STU Series

→ Input wire connection method of the external trigger signal

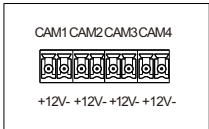
3STU series controller can set-up rising edge trigger / failling edge trigger, LTS-3STU48200-4 have 4 trigger interface, each with + , input (5-24V) high level between + , trigger function can be realized.



Remark: TR1 (+1-) trigger CH1, TR12(+2-) trigger CH2, TR3 (+3-) trigger CH3, TR4 (+4-) trigger CH4.

→ Wire connection method of camera synchronous trigger signal

3STU series controller have 4 sets 12V camera trigger signal, synchronous with the output light, used for camera trigger, can trigger the camera shooting while the light on.

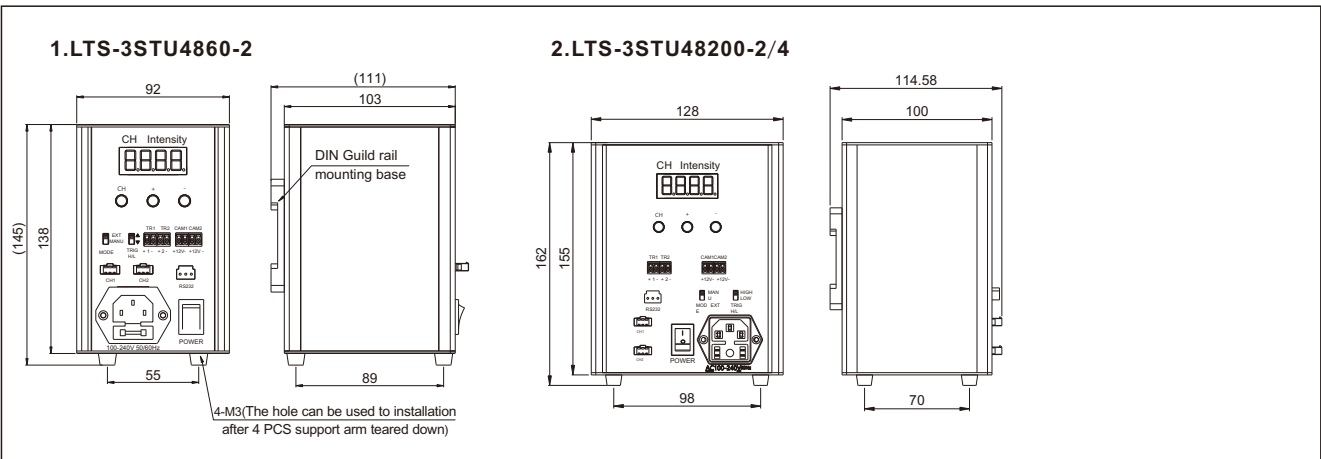


Remark: CAM1 and CH1 output synchronously, CAM2 and CH2 output synchronously, CAM1 and CH1 output synchronously, CAM2 and CH2 output synchronously.

### → Controller model

Product	Model	Output voltage range	Total output power	One way Max. output power	Number of channels	Dimen-sion	Extenal trigger voltage	Remark
Brighten strobe controller	LTS-3STU4860-2	48V	60W	30W	2	1	5-24V rising edge trigger or failling edge trigger	Botton operation, pulse width adjustable, communication and digital tube display
	LTS-3STU48200-2	48V	200W	100W	2	2		
	LTS-3STU48200-4	48V	200W	60W	4	2		

### → Boundary dimension(mm)



### → Parameters

Item	LTS-3STU4860-2	LTS-3STU48200-2/4	Remark
Number of channels	2 way	2、 4 way	
Input voltage	AC 100-240V		
Input frequency range	50/60Hz		
Output voltage	48V		
Working mode	Normal on mode ( Internal self-trigger mode / external trigger mode)		
Luminance control method	manual adjust by button, PC remote adjustment		
Luminance control mode	brighten		
Lighting time	0-999us		
Baud rate	9600pbs		
Communication	RS232 serial port		
Trigger signal	rising / failling edge trigger		
Lighting time delay	<2us		
External trigger signal effective frequency	<704Hz		cycle>1.42ms

