

## Intelligent LED Driver (constant current)

- Dimming interface: DMX512/RDM, Push DIM.
- With RDM remote device management protocol.
- T-PWM™ digital dimming, present a perfect visual experience.
- Dimming range: 0-100%, LED start at 0.01% possible.
- With soft-on and fade in function, visual more comfortable.
- 0-100% flicker-free, High frequency exemption level.
- DIP switch for 8 optional currents' quick selection.
- Innovative thermal management technology, intelligent power life protection.
- Multi-current & wide voltage, suitable for different power LED.
- Short circuit / Over-heat / Over load / Non-load protection, recover automatically.
- Non-load output voltage 0V to prevent damages to LED caused by poor contact.
- Suitable for internal lights application for I / II / III.
- Up to 50000-hour life time.
- 5 years warranty (Rubycon capacitor).



**T-PWM™**  
Super depth dimming technology

**Flicker-Free**  
IEEE 1789

Dimmable:  
0.01-100%



## Specification

Model	DMX-15-100-700-E1A1	DMX-25-150-900-E1A1	DMX-36-200-1200-E1A1		
OUTPUT	Output Voltage	10-54Vdc			
	Max Output Voltage	58Vdc			
	Non-load Output Voltage	0Vdc			
	Output Current	100-700mA	150-900mA	200-1200mA	
	Output Power	1-15W	1.5-25W	2-36W	
	Dimming Range	0-100%, LED start at 0.01% possible			
	Strobe Level	No video flicker / High frequency exemption level			
	PWM Dimming Frequency	≤3600Hz			
	LF Current Ripple(120Hz)	<2%			
	Current Accuracy	±5%			
Ripple & Noise	≤2V (no dim)				
INPUT	Dimming Interface	DMX512/RDM, Push DIM			
	Input Voltage Range	220-240Vac			
	Frequency	50/60Hz			
	Input Current	<0.15A	<0.2A	<0.3A	
	Power Factor	PF>0.90/230Vac, at full load	PF>0.93/230Vac, at full load	PF>0.95/230Vac, at full load	
	THD	≤20% at 230Vac, at full load			
	Efficiency(typ.)	83%	84%	87%	
	Inrush Current(typ.)	Cold start 2.47A at 230Vac (twidth=24.3μs measured at 50% Ipeak)	Cold start 3.05A at 230Vac (twidth=34.1μs measured at 50% Ipeak)	Cold start 6.29A at 230Vac (twidth=57.3μs measured at 50% Ipeak)	
	Anti Surge	L-N: 1kV			
	Leakage Current	<0.5mA/230Vac			
ENVIRONMENT	Working Temperature	ta: 50°C tc: 90°C			
	Working Humidity	20 - 95%RH, non-condensing			
	Storage Temp., Humidity	-40°C ~ 80°C, 10-95%RH			
	Temp. Coefficient	±0.03%/°C (0-50°C)			
	Vibration	10-500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes			
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature>110°C, auto recovers			
	Over Load Protection	Shut down the output when rated power>102%, auto recovers			
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers			
	Non-load Protection	Shut down the output if no load, auto recovers when load back to normal			
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac			
	Isolation Resistance	I/P-O/P: 100MQ/500VDC/25°C/70%RH			
	Safety Standards	CCC	China	GB19510.1, GB19510.14	
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493	
		CE	European Union	EN61347-1, EN61347-2-13, EN62384	
		UKCA	Britain	BS EN 61347-2-13:2014+A1:2017 BS EN 61347-1:2015+A1:2021	
		RCM	Australia	AS61347-1, AS61347-2-13	
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384	
	EMC Emission	CCC	China	GB/T17743, GB17625.1	
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547	
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3	
		UKCA	Britain	BS EN IEC 55015:2019/A11:2020, BS EN IEC 61547:2009, BS EN IEC 61000-3-2:2019, BS EN 61000-3-3:2013/A1:2019	
EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547				
Strobe Test Standard	IEEE 1789				
OTHERS	Dimension	167×41×32mm(L×W×H)			
	Packing	168×43×35mm(L×W×H)			
	Weight[G.W.]	165g±10g			

## LED Current Selection

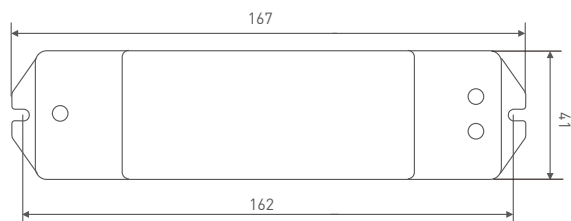
DIP switch for 8 optional currents' quick selection(see the table below).

<b>DMX-15-100-700-E1A1</b>	DIP Switch	⬇ ⬇ ⬇	⬇ ⬇ ⬆	⬇ ⬆ ⬆	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	 ON OFF
	Output Current	100mA	180mA	300mA	350mA	450mA	500mA	600mA	700mA	
	Output Voltage	10-54V	10-54V	10-50V	10-43V	10-34V	10-30V	10-25V	10-22V	
	Output Power	1W-5.4W	1.8W-9.72W	3W-15W	3.5W-15.05W	4.5W-15.3W	5W-15W	6W-15W	7W-15.4W	
<b>DMX-25-150-900-E1A1</b>	DIP Switch	⬇ ⬇ ⬇	⬇ ⬆ ⬆	⬆ ⬆ ⬆	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	 ON OFF
	Output Current	150mA	250mA	300mA	350mA	500mA	600mA	700mA	900mA	
	Output Voltage	10-54V	10-54V	10-54V	10-54V	10-50V	10-42V	10-36V	10-28V	
	Output Power	1.5W-8.1W	2.5W-13.5W	3W-16.2W	3.5W-18.9W	5W-25W	6W-25.2W	7W-25.2W	9W-25.2W	
<b>DMX-36-200-1200-E1A1</b>	DIP Switch	⬇ ⬇ ⬇	⬇ ⬆ ⬆	⬆ ⬆ ⬆	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	 ON OFF
	Output Current	200mA	350mA	500mA	600mA	700mA	900mA	1050mA	1200mA	
	Output Voltage	10-54V	10-54V	10-54V	10-54V	10-52V	10-40V	10-35V	10-30V	
	Output Power	2W-10.8W	3.5W-18.9W	5W-27W	6W-32.4W	7W-36.4W	9W-36W	10.5W-36.75W	12W-36W	

- \* Please choose the current value when the driver is power off.
- \* E.g. LED 3V/pcs: 10-54V can power 3-18pcs LEDs in series, 10-22V can power 3-7pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.
- \* Setting DMX address via RDM function

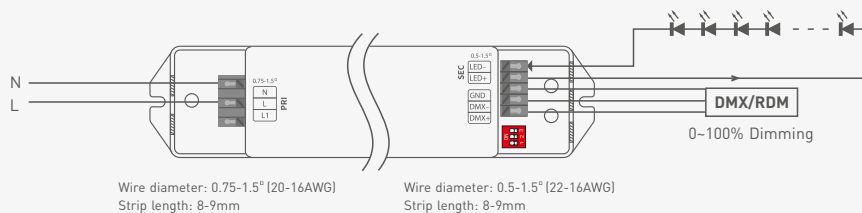
## Dimensions

Unit: mm

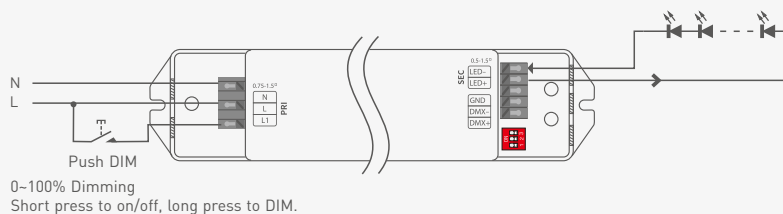


## Wiring Diagram

### DMX/RDM connection



### Push DIM connection



The dimming interface priority: First DMX/RDM, next Push DIM.

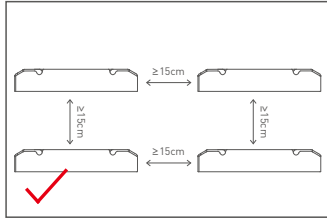
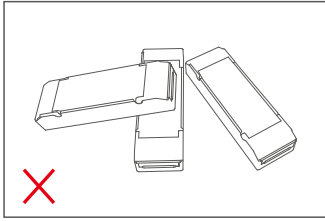
## Push DIM



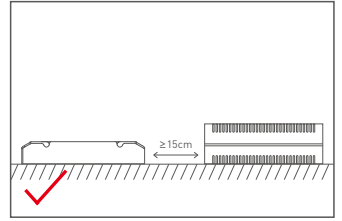
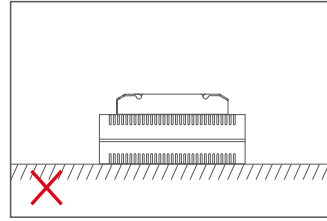
Reset Switch

- On/off control: Short press.
- Stepless dimming: Long press.
- With every other long press, the brightness goes to the opposite direction.
- Dimming memory: Brightness will be the same as previously adjusted when turning on again.

## Installation Precautions



Please do not stack the products. The distance between two products should be  $\geq 15\text{cm}$  so as not to affect heat dissipation and the lifespan of the products.

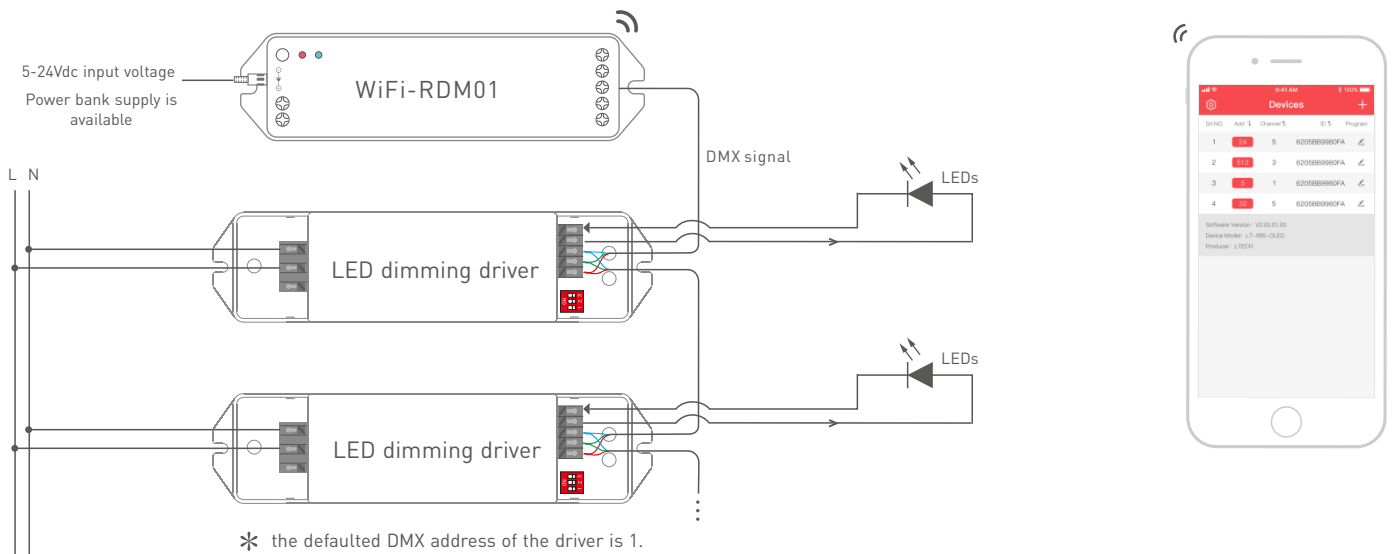


Please not place the products on LED drivers. The distance between the product and the driver should be  $\geq 15\text{cm}$  so as not to affect heat dissipation and shorten the lifespan of the products.

## DMX Address Setting

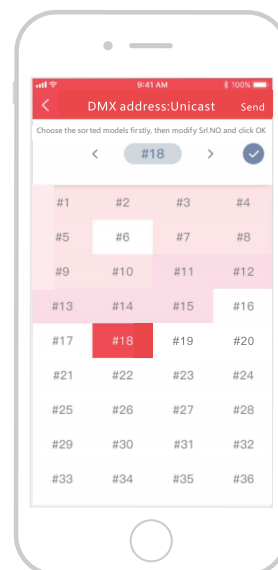
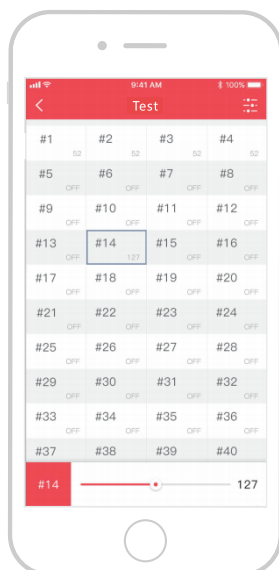
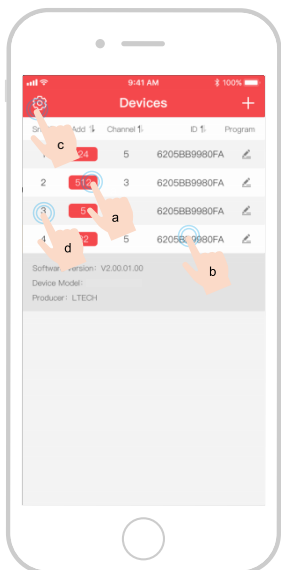
The DMX driver can work with the address editor that complies with standard RDM protocol.

It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:



## LTECH RDM editor App interface instruction

Download the App, setting the parameters after well connecting the RDM editor, please check the manual of WiFi-RDM01 for more details.

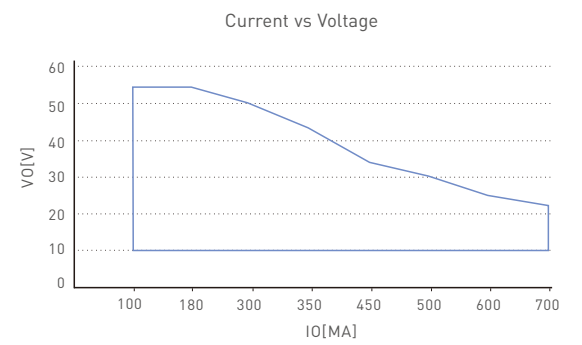
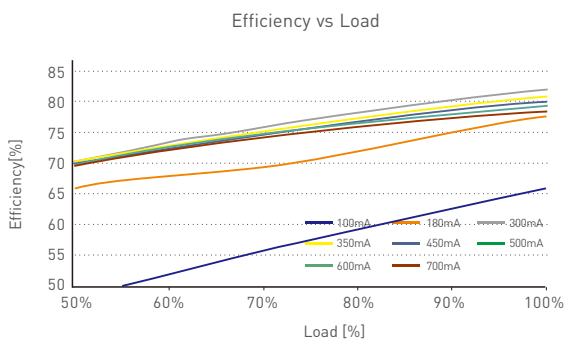
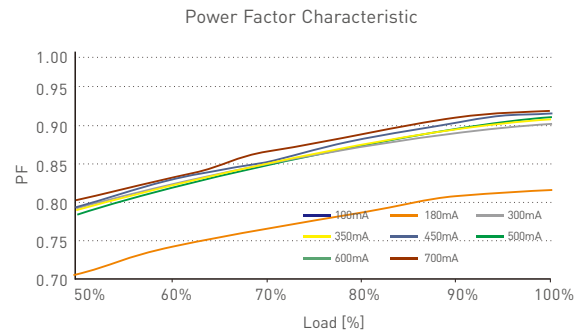
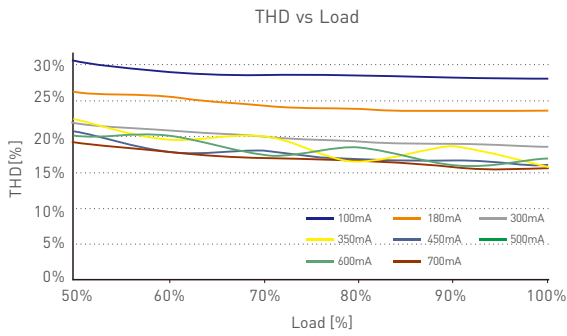


- a: Click "Add", edited the address in corresponding box.
- b: Click "ID", get more product details.
- c: Click "⚙️", enter setting interface.
- d: Click "No.", issue the recognizing command.

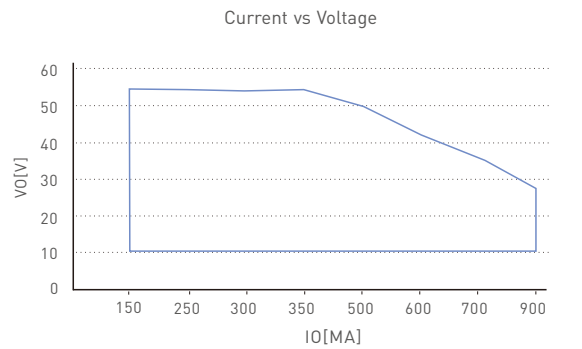
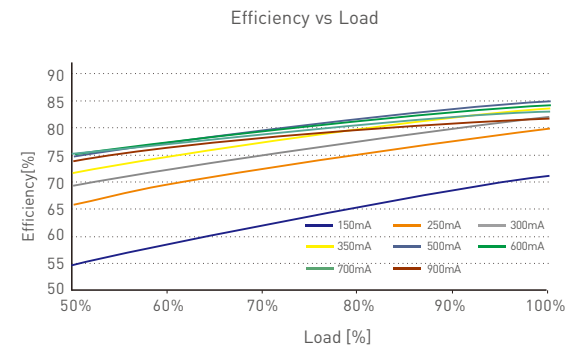
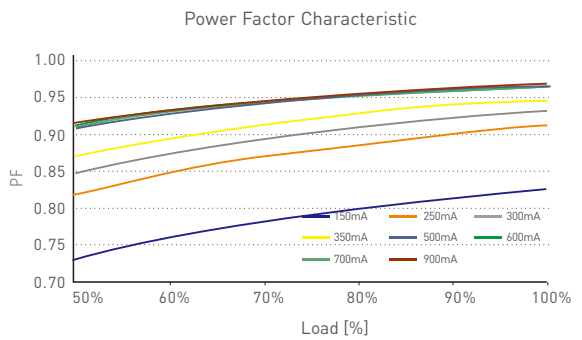
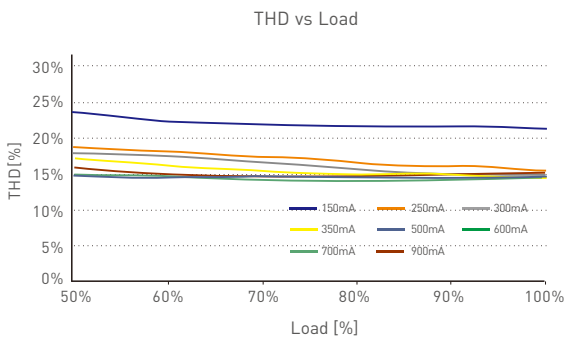
Test

DMX address setting

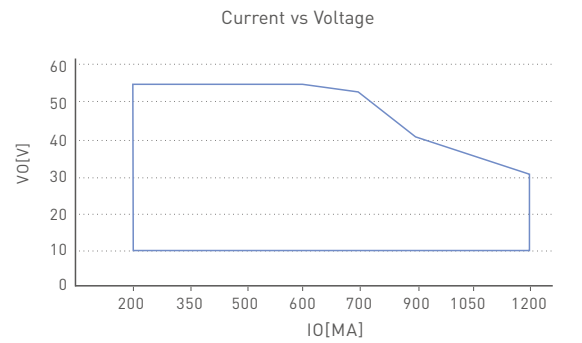
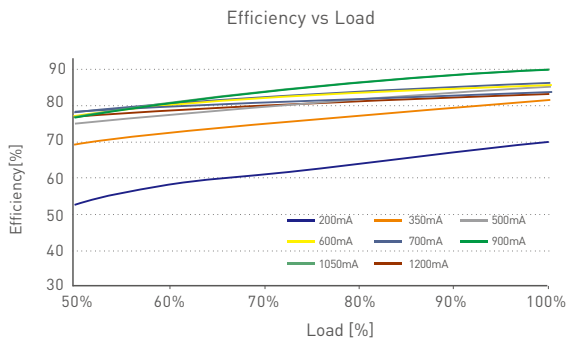
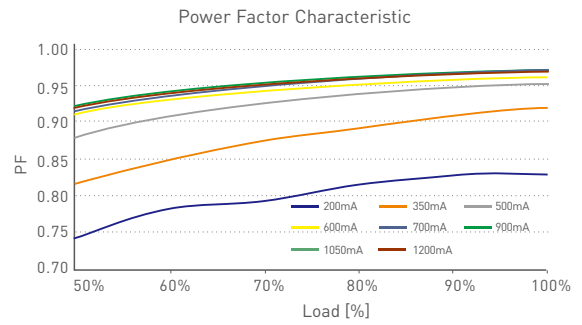
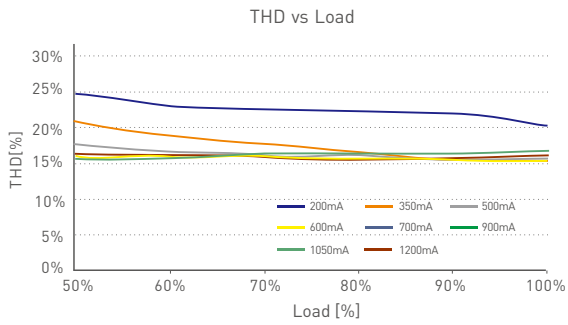
## Relationship Diagrams



DMX-15-100-700-E1A1



DMX-25-150-900-E1A1



DMX-36-200-1200-E1A1

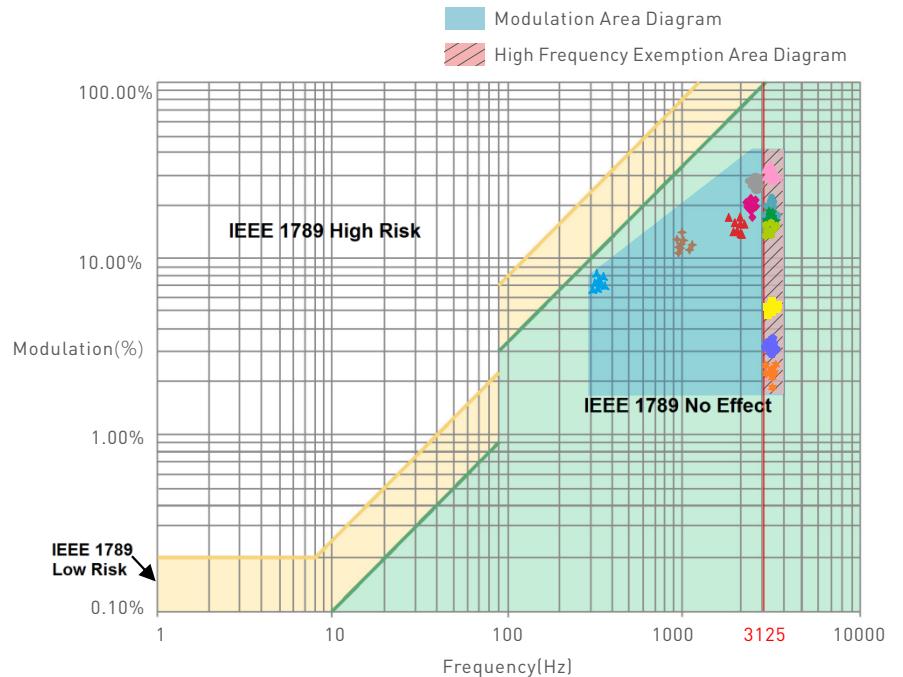
## Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform Frequency of Optical output	limit [%]
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform Frequency of Optical output	limit [%]
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$[0.08/2.5] \times f$
$f > 3125\text{Hz}$	Exemption assessment (High frequency exemption)

Brightness

- ▲ 0.1%
- ◆ 1%
- ▲ 5%
- 10%
- 20%
- ▲ 30%
- 40%
- ★ 50%
- 60%
- 70%
- 80%
- ★ 90%
- ◆ 100%



Marks in the right chart were tested results of different current ranges. The output frequency is 0Hz in 100% brightness and its corresponding modulation 0%, which could not be shown in the right chart.

## Attentions

- Products shall be installed by qualified professionals.
  - LTECH products are non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure it is mounted in a water proof enclosure.
  - Good heat dissipation will extend the working life of products. Please ensure good ventilation.
  - Please check if the working voltage used complies with the parameter requirements of products.
  - The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
  - Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
  - If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.
- \* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

## Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail

## Update Log

Version	Updated Time	Update Content	Updated by
A4	2019.10.24	Add RDM editor connection diagram	Liu Weili
A5	2021.12.10	Update product silk screen, TUV certification icon; add precautions and warranty agreement	Liu Weili
A6	2022.04.27	Update product certification icons	Liu Weili