LTSYS

LM-240-24-G1M2

DMX512/RDM
PUSH DIM

Intelligent Tunable White LED Driver (Constant Voltage)

- The housing is made from V0 flame retardant PC materials from SAMSUNG/COVESTRO.
- The clamshell design and screwless type for strain-relief. The design of dismountable end cap allows you to adjust the length of housing depending on your needs.
- Change the dimming method, PWM frequency and other parameters via the APP.
- Support RDM protocol.
- With soft-on and fade-in dimming function, enhancing your visual comfort.
- The whole dimming process is flicker-free with high frequency exemption level.
- Dimming from 0-100%, down to 0.01%.
- Comply with the EU's ErP Directive, networked standby<0.5W.
- Overheat, over voltage, overload, short circuit protection and automatic recovery.
- Suitable for Class Ⅰ / Ⅱ / Ⅲ indoor light fixtures.
- Normal service life can reach 100,000 hours.
- 5-year warranty (Rubycon capacitor).

DIM

RDM
DMX

T-PWM
Dimming Technology

Flicker Free
IEEE 1789

Dimmable:
1:10000

SELV
RoHS

RED

NFC

The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.

Overheat Protection

Overvoltage Protection

Overload Protection

Short Circuit Protection

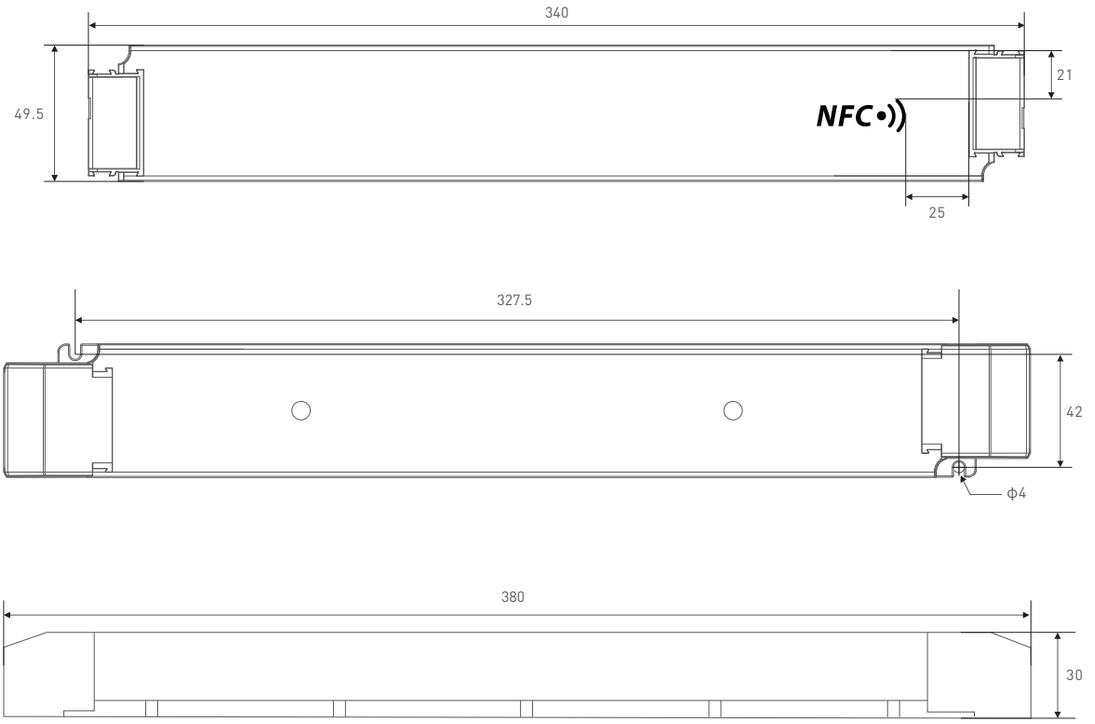
Technical Specs

Model		LM-240-24-G1M2		
Features	Output Type	Constant voltage		
	Dimming Interface	DMX512/RDM, PUSH DIM		
	Output Feature	Isolation		
	Protection Grade	IP20		
	Insulation Grade	Class II (Suitable for class Ⅰ/ Ⅱ /Ⅲ light fixtures)		
OUTPUT	Output Voltage	24Vdc		
	Output Voltage Range	24Vdc±0.5Vdc		
	Output Current	Max. 10A		
	Output Power	Max. 240W		
	Dimming Range	0~100%, down to 0.01%		
	Ripple(maximum)	200mVp-p		
	Voltage Accuracy	±5%		
	PWM Frequency	⩽22000Hz (NFC setting range 300-20000Hz)		
INPUT	DC Voltage Range	200-250Vdc		
	AC Voltage Range	220-240Vac		
	EoFv	EoFv=99.6%		
	Input Voltage	220-240Vac		
	Frequency	0/50/60Hz		
	Input Current	Max. 1.18A/230Vac		
	Power Factor	PF>0.99/230Vac, at full load		
	THD	THD⩽5%@230Vac, at full load		
	Efficiency (Typ.)	94%		
	Inrush Current	Cold start 55A(Test twidth=1200us tested under 50% Ipeak)/230Vac		
	Anti Surge	L-N: 2KV		
	Leakage Current	Max. 0.5mA		
ENVIRONMENT	Working Temperature	ta: -20 ~ 45°C tc: 86°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temperature/Humidity	-40 ~ 80°C/10~95%RH		
	Temperature Coefficient	±0.03%/°C(0-50°C)		
	Vibration	10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively		
PROTECTION	Overload Protection	Shut down the output when rated power⩾102%, auto recovers		
	Overheat Protection	Intelligently adjust or turn off the output current if the PCB temperature ⩾110°C, and recover automatically		
	Overvoltage Protection	Shut down the output when voltage⩾28V, and recover automatically		
	Short Circuit Protection	Enter hiccup mode if short circuit occurs, and recover automatically		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Insulation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH		
	Safety Standards	CCC	China	GB19510.1, GB19510.14
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493
		CB	CB Member States	IEC61347-1, IEC61347-2-13
		CE	European Union	EN61347-1, EN61347-2-13, EN62384
		KC	Korea	KC61347-1, KC61347-2-13
		EAC	Russia	IEC61347-1, IEC61347-2-13
		RCM	Australia	AS 61347-1, AS 61347-2-13
		ENEC	Europe	EN61347-1, EN61347-2-13, EN62384
		UKCA	Britain	BS EN 61347-1, BS EN 61347-2-13, BS EN 62493
		BIS	India	IS 15885 (PART 2/SEC 13)
	EMC Emission	CCC	China	GB/T17743, GB17625.1
		CE	European Union	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		KC	Korea	KSC 9815, KSC 9547
		EAC	Russia	IEC62493, IEC61547, EH55015
		RCM	Australia	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		UKCA	Britain	BS EN IEC 55015, BS EN IEC 61000-3-2, BS EN 61000-3-3, BS EN 61547
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61547		
ErP	Power Consumption	Networked standby		<0.5W (After shutdown by command)
		No-load power consumption		<0.5W (When the lamp is not connected)
	Flicker/Stroboscopic Effect	IEEE 1789		Meet IEEE 1789 standard/High frequency exemption level
		CIE SVM		Pst LM⩽1.0, SVM⩽0.4
	DF	Phase factor		DF⩾0.9
OTHERS	Weight(N.W.)	555g±10g		
	Dimensions	380×49.5×30mm(L×W×H)		

The driver is suitable for connecting resistor current-limiting LED fixture (e.g. LED strip). The inrush current will be dozens of times increased if connecting built-in constant current IC current-limiting LED fixtures, the driver will activate the overloaded protection (hiccups flickering). When you order, please remark controlling the constant current LED fixture (e.g. MR16 lamp, underground light, LED wall washer, constant current LED strip, etc.), so that we can prepare them with special procedures.

Product Size

Unit: mm



Wiring Diagram

DMX512/RDM Connection

0~100% brightness adjustment.

Wire diameter: 0.75-1.5㎟(20-16AWG)
Strip length: 10-11mm

Wire diameter: 1.0-1.5㎟(18-16AWG)
Strip length: 6-7mm

Push DIM Connection

✻ Dimming is non-effective on the condition of Vdc input.
Only when it is set to Memory in System Failure Level and does not receive DMX data, Push DIM can be switched.

✻ System failure level can be set through the NFC Lighting APP/WIFI-RDM.

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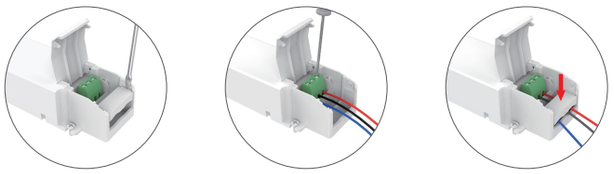
Push DIM

Reset switch

DIM

- 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.

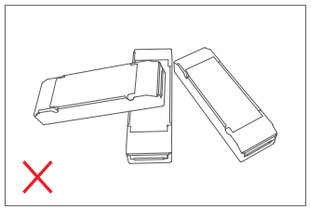
Protective Housing Application Diagram

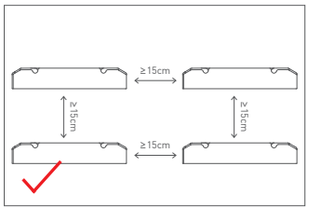


Use a screwdriver to pry up the protective housing at the edge of the wire fixing board. Then connect to the wires as the diagram shows and press down the wire fixing board.

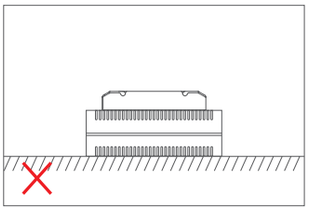
Press down the back side of the protective housing and move it from side to side to remove it.

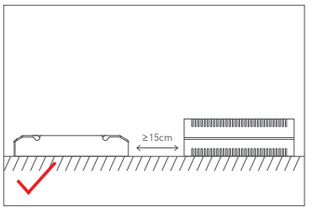
Installation Precautions





Please do not stack the products. The distance between two products should be ≥15cm 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 ≥15cm so as not to affect heat dissipation and shorten the lifespan of the products.

Note: The temperature within the installation area should be within the working temperature range of the products. Please do not install products inside LED fixtures to avoid temperature exceeding the working temperature that may affect the product lifetime.

Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).

*** Before you begin setting the parameters of the driver, please make sure the driver is powered off.**

Read/Write the LED driver

Use your NFC-capable phone to read LED driver data, then edit the parameters and they can be directly written to the driver.

1. Read the LED driver

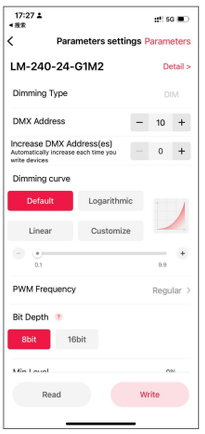
On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC logo of the driver to read the driver parameters.

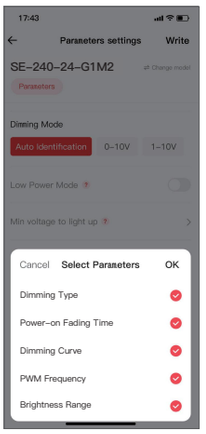
2. Edit the parameters

Click【Parameter settings】to edit the advanced parameters, like DMX address, PWM frequency, dimming curve, etc.

3. Write to the driver

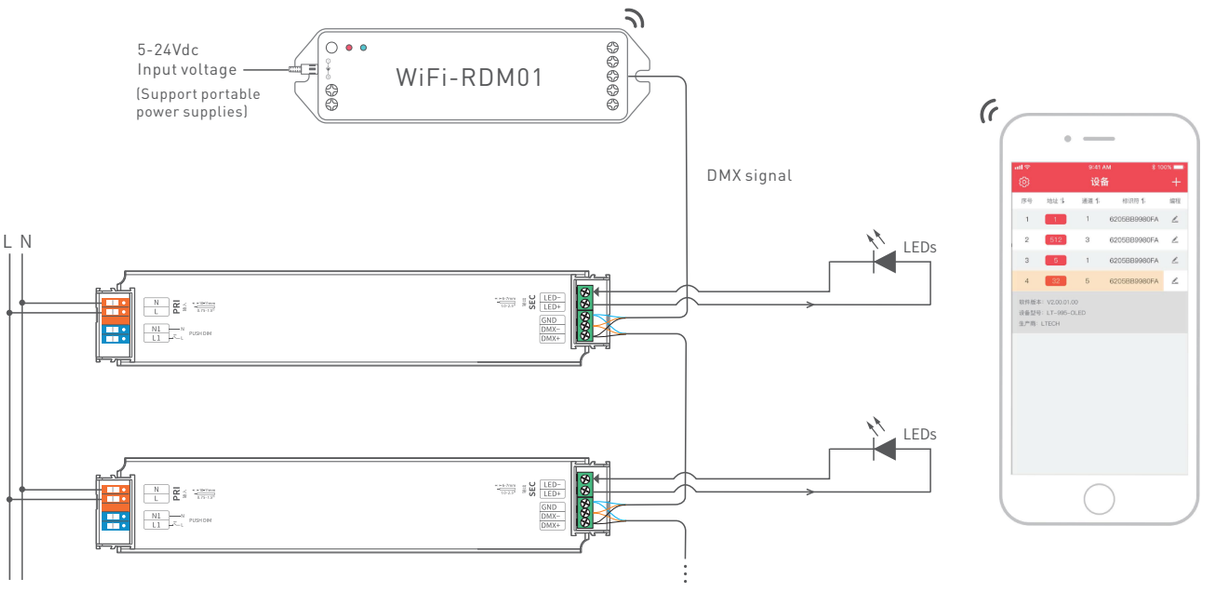
After completing the parameter settings, click 【Write】 in the upper right corner, and keep the programmer's sensing area close to the NFC logo of the driver, so the parameters can be written to the driver.





Use with RDM Editor

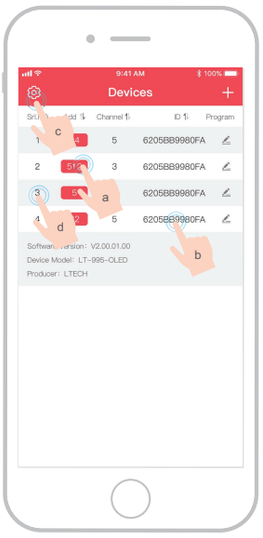
The DMX driver can work with a DMX address programmer that follows the standard RDM protocol.
It is recommended to use LTECH RDM Programmer (Model: WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting.
Wiring diagram as below:



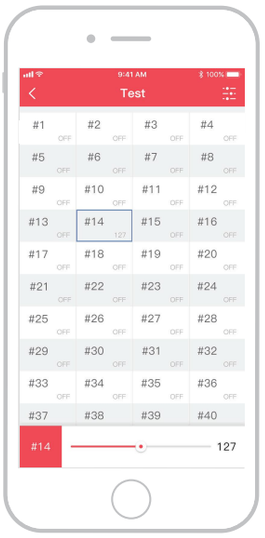
✻ The default of DMX address of the LED driver is 1

Mobile App Interface for the RDM Programmer

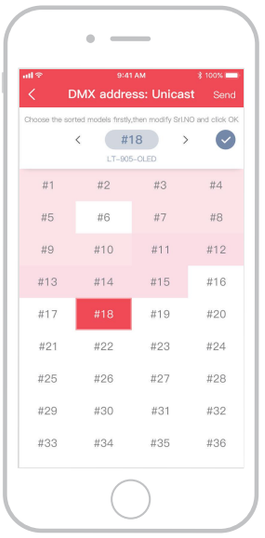
Download the App with your mobile phone and connect the RDM Programmer successfully, then you are allowed to set parameters through the APP.
Please refer to the WiFi-RDM01 manual fo more details.



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

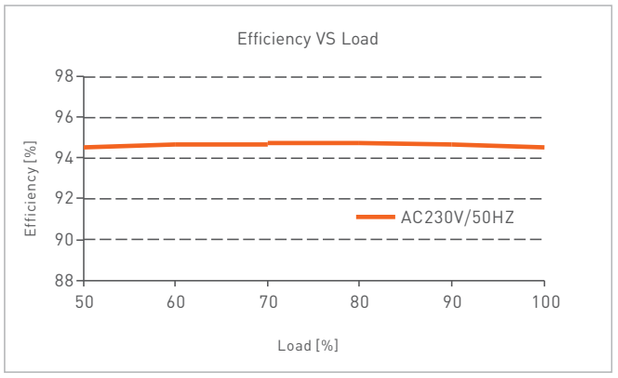


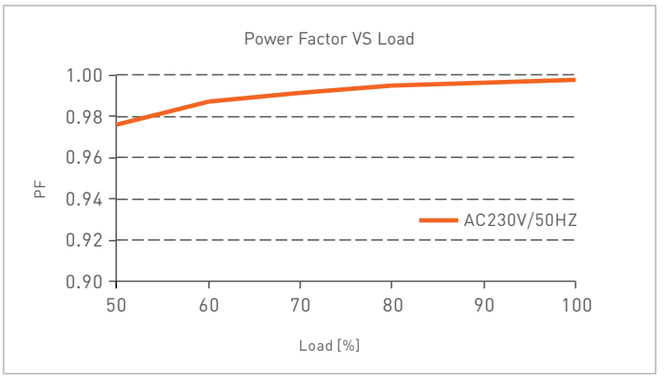
Testing

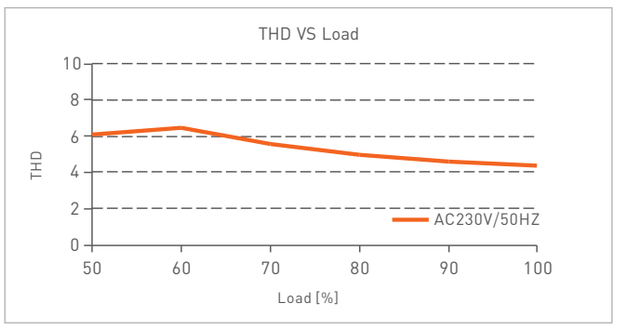


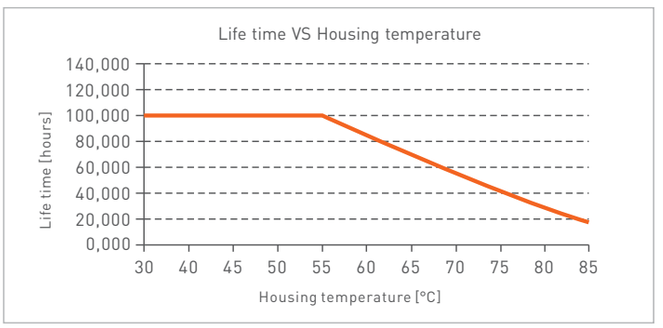
DMX address setting

Relationship Diagrams









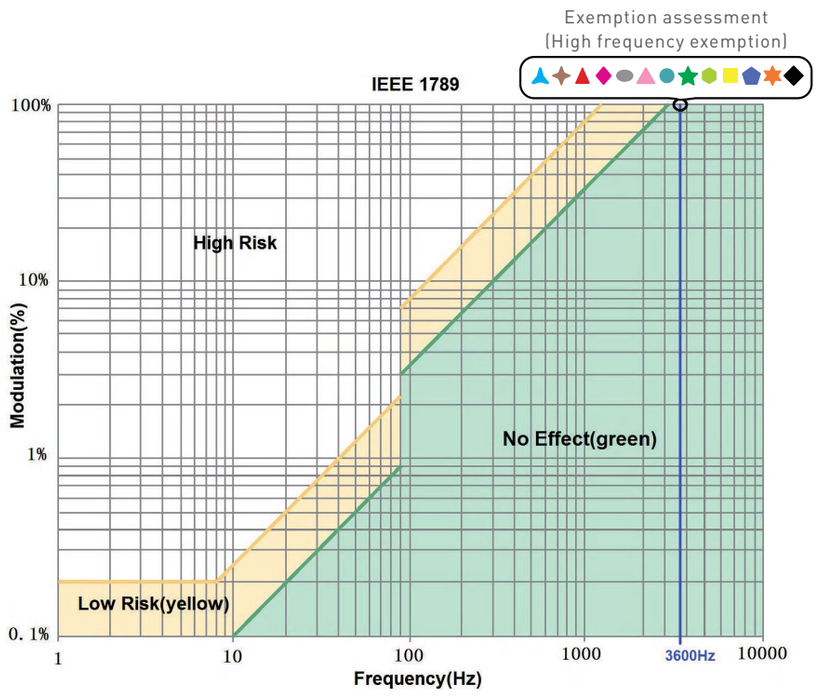
Flicker Test Form

IEEE 1789

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

Brightness

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



Packaging Specifications

Model	LM-240-24-G1M2
Carton Dimensions	400×350×125mm(L×W×H)
Quantity	10 PCS/Layer; 2 Layers/Carton; 20 PCS/Carton
Weight	0.555 kg/PC; 12 kg±5%/Carton

Packaging Image

Inner Packaging Box

Carton Packaging

Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong 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,The warranty that issues in writting shall prevail.

Update Log

Version	Updated Time	Update Content	Updated by
A0	2024.01.08	Original version	Li Siyu
A1	2025.08.21	Updatelogo,laserengraving,companyaddress	Simin Zhong

LTSYS

LM-240-24-G1M2

DMX512/RDM
PUSH DIM

LED智能调光驱动器 (恒压型)

- 外壳采用科思创/三星PC阻燃V0级原料
- 免螺丝压线翻盖设计，可拆卸端盖，按需调节壳体长度
- 通过手机APP可更改DMX地址、PWM频率等参数，实现驱动器数据交互功能
- 支持RDM远程设备管理协议
- 带软启动渐亮功能，让人眼视觉更舒服
- 0-100%全程调光无可视频闪
- 调光范围0-100%, LED从0.01%开始调光
- 欧盟ERP空载功耗、网络待机功耗＜0.5W
- 过温、过载、短路保护，可自动恢复
- 适合室内Ⅰ、Ⅱ、Ⅲ类灯具应用
- 常规使用下寿命可达10万小时
- 5年保修期（采用红宝石电容）

调光

RDM
DMX

T-PWM
超深度调光技术

无频闪
IEEE 1789

Dimmable:
1:10000

SELV
RoHS

RED

NFC

认证图标仅代表产品正在进行这一系列的认证申请，认证资质以产品实物为准。

过温保护　过压保护　过载保护　短路保护

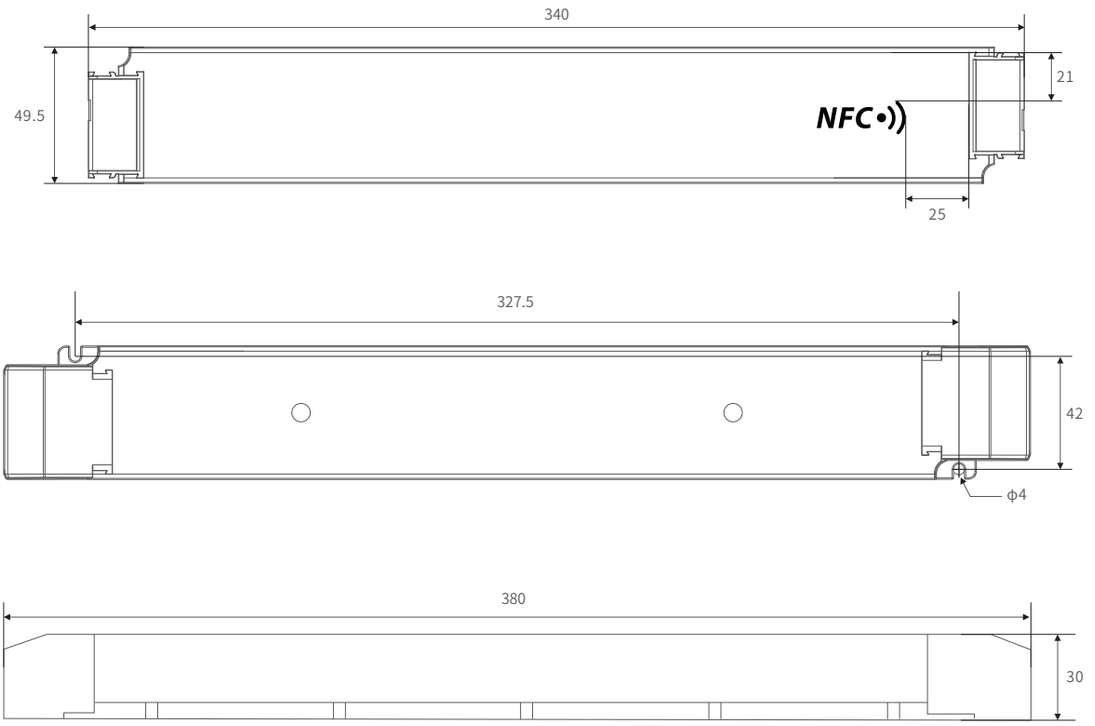
技术参数

型号				
		LM-240-24-G1M2		
特征	输出类型	恒压		
	调光接口	DMX512/RDM, PUSH DIM		
	输出特征	隔离		
	防护等级	IP20		
	绝缘等级	II 类 (适用于室内Ⅰ、Ⅱ、Ⅲ类灯具)		
输出	输出电压	24Vdc		
	输出电压范围	24Vdc±0.5Vdc		
	输出电流	Max. 10A		
	负载功率	Max. 240W		
	调光范围	0-100%，调光深度: 0.01%		
	纹波与噪声(最大)	200mVp-p		
	电压精度	±5%		
	PWM频率	≤22000Hz (NFC设置范围300-22000Hz)		
输入	直流电压范围	200-250Vdc		
	交流电压范围	220-240Vac		
	应急输出系数	EoFv=99.6%		
	额定电压	220-240Vac		
	频率范围	50/60Hz		
	输入电流	Max. 1.18A/230Vac		
	功率因数	PF>0.99/230Vac (满载)		
	谐波THD	THD≤5%@230Vac (满载)		
	效率(Typ.)	94%		
	浪涌电流	冷启动，55A/(在50%Ipeak下测试twidth=1200us)/230Vac		
	抗浪涌	L-N: 2KV		
	漏电流	Max. 0.5mA		
环境	工作温度	ta: -20 ~ 45°C　tc: 86°C		
	工作湿度	20 ~ 95%RH, 无冷凝		
	储存温度/湿度	-40 ~ 80°C/10~95%RH		
	温度系数	±0.03%/°C(0-50°C)		
	耐振动	10-500HZ, 2G 12分钟/周期，X, Y, Z轴各72分钟		
保护	过载保护	负载功率≥102%保护，异常排除自动恢复		
	过温保护	根据PCB温度超标情况(≥110°C)，智能调节电流输出或关闭，可自动恢复		
	过压保护	电压≥28V, 关闭输出，可自动恢复		
	短路保护	输出线路短路进入打嗝模式，可自动恢复		
安规和电磁规格	耐压	输入对输出：3750Vac		
	绝缘阻抗	输入对输出：100MΩ/500VDC/25°C/70%RH		
	安全规范	CCC	中国	GB19510.1, GB19510.14
		TUV	德国	EN61347-1, EN61347-2-13, EN62493
		CB	CB成员国	IEC61347-1, IEC61347-2-13
		CE	欧盟	EN61347-1, EN61347-2-13, EN62384
		KC	韩国	KC61347-1, KC61347-2-13
		EAC	俄罗斯	IEC61347-1, IEC61347-2-13
		RCM	澳洲	AS 61347-1, AS 61347-2-13
		ENEC	欧洲	EN61347-1, EN61347-2-13, EN62384
		UKCA	英国	BS EN 61347-1，BS EN 61347-2-13，BS EN 62493
	电磁兼容发射	CCC	中国	GB/T17743, GB17625.1
		CE	欧盟	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		KC	韩国	KSC 9815, KSC 9547
		EAC	俄罗斯	IEC62493, IEC61547, EH55015
		RCM	澳洲	EN55015, EN61000-3-2, EN61000-3-3, EN61547
		UKCA	英国	BS EN IEC 55015，BS EN IEC 61000-3-2，BS EN 61000-3-3，BS EN 61547
	电磁兼容抗扰度	EN61000-4-2,3,4,5,6,8,11, EN61547		
ErP	功耗	网络待机功耗	＜0.5W（通过指令开关后）	
		空载功耗	＜0.5W（不接灯具时）	
	频闪/频闪效应	IEEE 1789	满足无影响/高频豁免考核级别	
		CIE SVM	Pst LM≤1.0，SVM≤0.4	
	DF	相位因素	DF≥0.9	
其他	产品重量	555g±10g		
	产品尺寸	380×49.5×30mm(L×W×H)		

本款驱动器适合连接电阻限流的LED灯具 (如: LED灯条)。如果连接内置恒流IC限流的灯具，会产生几十倍的瞬间浪涌电流，导致驱动器会执行过载保护 (打嗝频闪)。下单时这类内置恒流IC限流的灯具需要注明 (如: Mr16灯杯、地埋灯、洗墙灯、恒流硬灯条等)，以便烧写特殊程序。

尺寸图

单位：mm



连接应用图

DMX512/RDM 连接方式

线径：0.75-1.5㎟ (20-16AWG)
剥线长度：10-11mm

线径：1.0-1.5㎟ (18-16AWG)
剥线长度：6-7mm

Push DIM 连接方式

✻ 调光接口优先级为：首先DMX512/RDM，然后Push DIM。
仅当系统失效状态设置，设置为"记忆"时，并且没有收到DMX数据
才能允许其切换到按键调光。

✻ 系统失效状态可通过NFC lighting/WiFi-RDM进行设置。

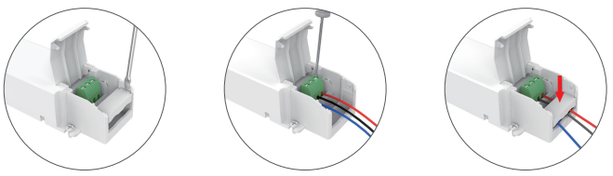
Push DIM

复位开关

- 开关控制: 短按。
- 无级调光调色: 长按。
- 每隔一次长按，明暗度会向相反方向调整。
- 调光记忆: 当再次开关时，灯光会回到先前调整的亮度水平。

保护盖应用图

压线安装

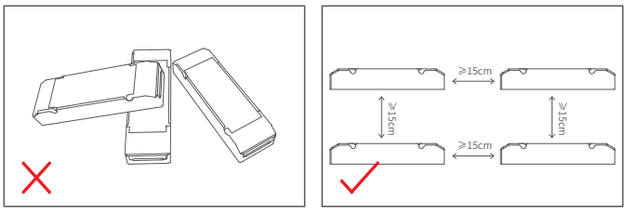


打开保护盖，用螺丝批撬起压线板侧边即可拆下，按照接线图接线后向下按压线板固定住线，合上保护盖即可。

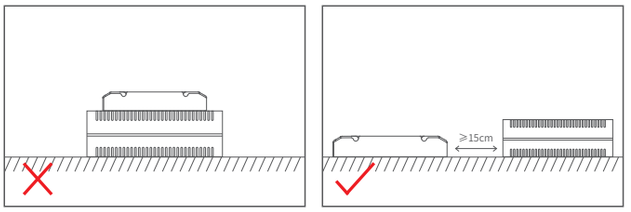
保护盖拆卸

在外壳底部往下按压并左右掰动，即可将保护盖拆下。

安装注意事项



请勿将产品堆叠摆放，产品与产品间隔距离应≥15cm，避免影响产品散热和使用寿命。



请勿将产品置于电源上方，与电源间隔距离应≥15cm，避免影响产品散热而减少使用寿命。

注：安装需符合产品的环境工作温度，切勿安装到灯具内部，以免超出产品环境工作温度影响产品寿命。

搭配 NFC Lighting APP 使用

通过手机扫描下方二维码， 按提示完成APP安装。(因性能需求，要求手机型号苹果：iPhone 8及以上、且操作系统iOS13及以上； 安卓：具备NFC功能机型）

＊ 设置驱动器参数时，必须在驱动器断电情况下进行操作。

读/写智能电源

使用手机，通过NFC读取驱动器信息，根据需求设置参数后，可直接写入驱动器。

1. 读取驱动器

在APP “首页” 点击【读/写智能电源】，将手机感应区域靠近驱动器NFC标识点，读取驱动器参数。

2. 编辑参数

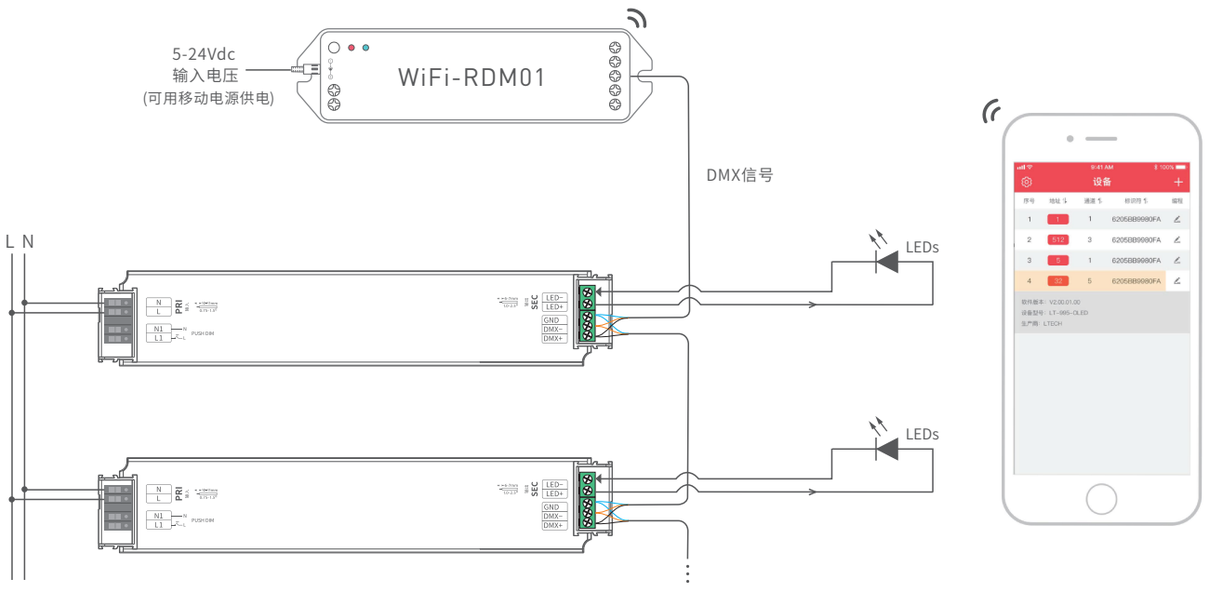
点击【参数管理】可编辑DMX地址、PWM频率、调光曲线等更多高级参数。

3. 写入驱动器

参数设置完成后， 点击右上角【写入】， 将手机感应区域靠近驱动器NFC标识点， 即可写入驱动器成功修改参数。

搭配RDM编辑器使用

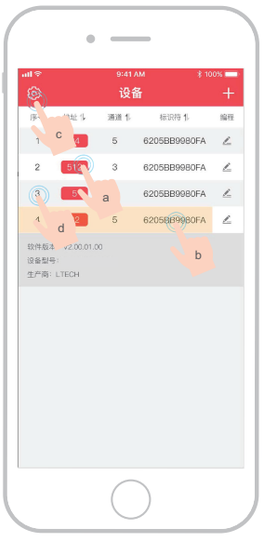
DMX电源可以与遵从标准RDM协议的地址编辑器配合使用。
建议使用LTECH的RDM编辑器（型号WiFi-RDM01），可实现手机远程浏览与设置参数等更多功能，连接图如下：



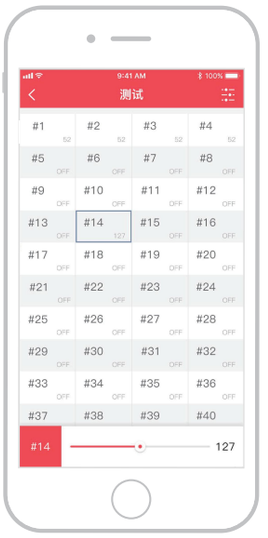
＊ 电源出厂DMX地址默认为1

LTECH RDM编程器APP界面介绍

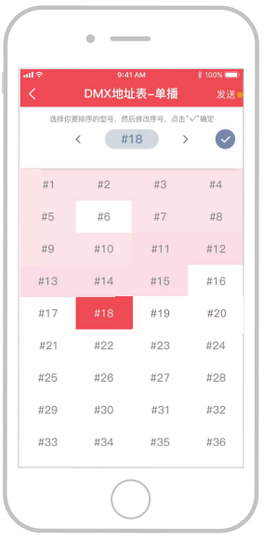
手机下载APP，与RDM编辑器连接成功后，即可通过APP设置参数，具体请参看WiFi-RDM01的使用说明书。



a：点击“地址”对应方框可编辑地址；
b：点击“标识符”出现产品详细信息；
c：点击 ⚙ 按钮，进入设置界面
d：点击序号发出识别命令。

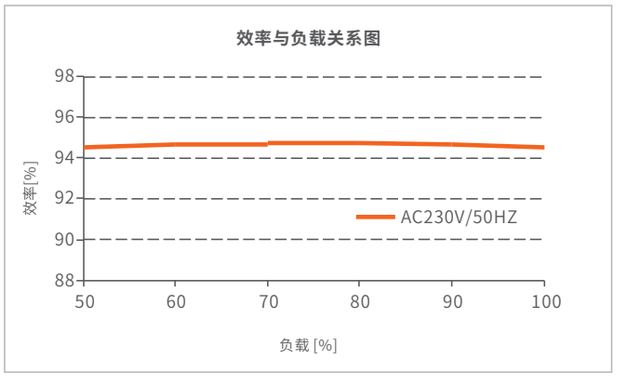


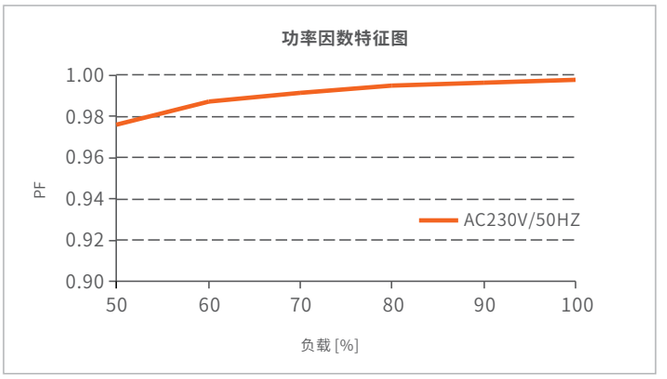
测试

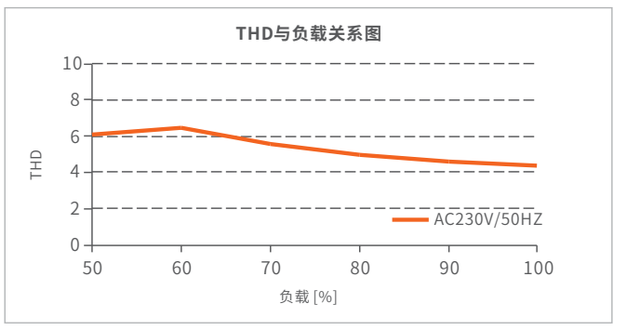


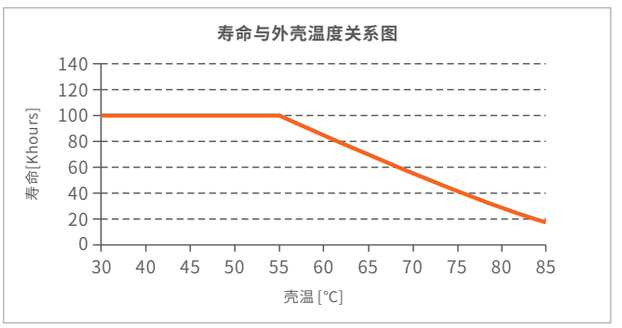
DMX地址设置

关系图表









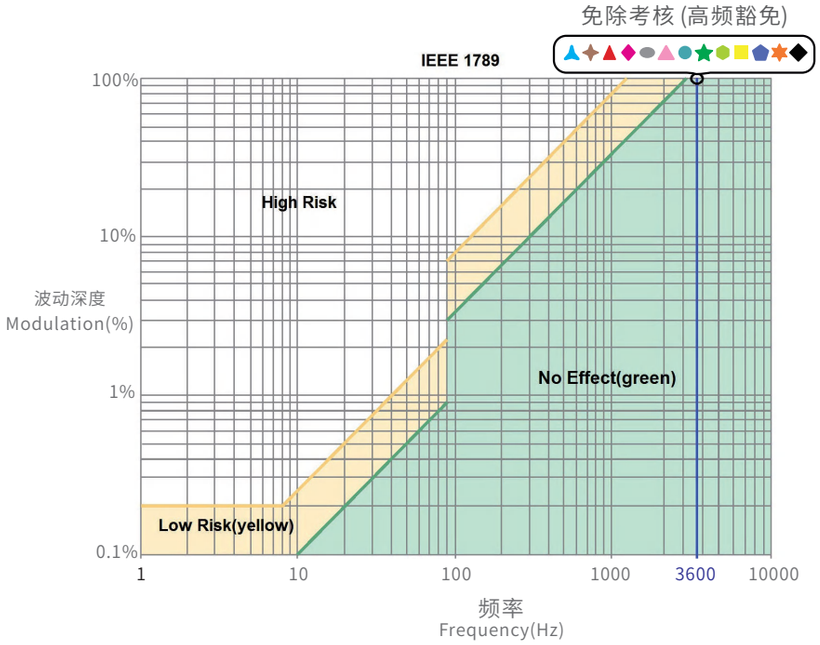
频闪测试表

IEEE 1789

低风险区域（Low Risk）的波动深度（Modulation）限值	
光输出波形频率 f	限值（%）
f ≤ 8Hz	0.2
8Hz < f ≤ 90Hz	0.025 × f
90Hz < f ≤ 1250Hz	0.08 × f
f > 1250Hz	免除考核
无风险区域（No Effect）的波动深度（Modulation）限值	
光输出波形频率 f	限值（%）
f ≤ 10Hz	0.1
10Hz < f ≤ 90Hz	0.01 × f
90Hz < f ≤ 3125Hz	(0.08/2.5) × f
f > 3125Hz	免除考核 (高频豁免)

亮度

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



包装规格

型号	LM-240-24-G1M2
包装箱尺寸	400×350×125mm(L×W×H)
数量	10PCS/层；2层/箱；20PCS/箱
重量	0.555kg/PC; 12kg±5%/箱

包装样式图

内包装盒

整箱包装

运输和贮存

1. 运输

产品适用车、船、飞机交通运输工具运输。

在运输中，应使用遮蓬进行防雨和防晒，并保持文明装卸，不应有剧烈振动、撞击等。

2. 贮存

贮存符合 I 类环境的规定。贮存期限超过6个月的产品建议重新检验，合格后方可使用。

注意事项

- 请由具有专业资格的人员进行调试安装；
- 雷特产品（专有型号除外）不能防水防雷，需避免日晒雨淋，如安装在户外，请用防水箱和防雷装置；
- 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境；
- 请检查使用的工作电压是否符合产品的参数要求；
- 使用的电线直径大小必须能足够负载连接的LED 灯具，并确保接线牢固；
- 通电调试前，应确保所有接线正确， 以避免因接线错误而导致灯具损坏；
- 如果发生故障，请勿私自维修；如果有疑问，请联系供应商。

* 本说明书的内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，欢迎向我司授权的经销商咨询。

保修条例

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特科技将给予免费修理或更换服务。

非保修条例:
属下列情况不在免费保修或更换服务范围之内:

- 已经超出保修服务期;
- 过高电压、超负载、操作不当等人为造成的损坏;
- 产品外形严重损坏或变形;
- 自然灾害以及人力不可抗拒原因造成的损坏;
- 产品保修标签和产品唯一条形码损坏;
- 无雷特科技签订的合同或发票凭证。

1. 修理或更换是雷特科技对客户的唯一补救措施。雷特科技不承担任何附带引起的损害赔偿责任, 除非在适用法律范围之内。
2. 雷特科技享有修正或调整本保修条款的权利, 并以书面形式发布为准。

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更新日志

版本	更改日期	更改内容	更改人
A0	2023.02.28	正稿	刘伟丽
A1	2025.08.21	更新logo、镭雕、公司地址	钟思敏