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Creating Connectivity for a Better Tomorrow

DMX无线传输

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室内无线 DMX

凭借突破性的专利识别共存技术,我们的CRMX™技术已成为全球的无线照明控制标准。我们的无线DMX产品提供前所未有的可靠性,为您提供无线控制灯具所需的信任。基于2.4 GHz频率的产品在世界上被广泛地使用。



CRMX Nova

我们的CRMX Nova产品系列旨在满足娱乐照明的要求;能经受住严格的巡回演出,租赁和舞台使用的磨损。

	<p>CRMX NOVA FX RDM RDM / 以太网FLEX产品</p> <p>CRMX Nova FX RDM可配置为发送器或接收器,适于多达512个通道的完整DMX / RDM,是租赁应用的理想选择。CRMX Nova FX RDM支持有线和无线RDM。</p>	<p>主要特点</p> <ul style="list-style-type: none"> • 单一-Universe Flex单元 • DMX512-A和RDM支持 • 高达1000米的传输范围 • 5毫秒延迟 • 自动识别共存 • 前向纠错
	<p>CRMX NOVA TX2 RDM RDM / 以太网传输器</p> <p>CRMX Nova TX2 RDM是一款支持双通道带RDM的发射器。输入可由XLR或以太网输入。CRMX Nova TX2 RDM支持有线和无线RDM。</p>	<p>主要特点</p> <ul style="list-style-type: none"> • DMX512-A和RDM支持 • 高达1000米的传输范围 • 5毫秒延迟 • 自动识别共存 • 前向纠错
	<p>CRMX NOVA RX RDM RDM接收器</p> <p>CRMX Nova RX RDM是一款支持单通道带RDM的接收器。它支持由CRMX发送器传输多达512个通道的完整DMX / RDM信息。将CRMX Nova RX RDM连接到任何支持RDM的装置,以从装置获得无线反馈。</p>	<p>主要特点</p> <ul style="list-style-type: none"> • DMX512-A和RDM支持 • 高达1000米的传输范围 • 5毫秒延迟 • 自动识别共存 • 前向纠错

MoonLite™

MoonLite™是一种全新的正在申请专利的无线照明控制产品,采用CRMX技术,结合蓝牙连接和内置电池。

	<p>MOONLITE DMX FLEX产品</p> <p>MoonLite™具有与所有CRMX产品相同的可靠功能,但尺寸要小得多。MoonLite™使基于平板电脑和手机的照明控制软件无需额外硬件即可连接。它非常适合在俱乐部,小型舞台活动,剧院和需要无线DMX连接的临时活动中使用。</p> <p>wireless DMX connectivity is needed.</p>	<p>主要特点</p> <ul style="list-style-type: none"> • 无线CRMX接收器/发射器 • 蓝牙与应用程序兼容 • 彩色编码配对 • 内置电池
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Specifications参数	CRMX Nova FX RDM (收发器)	CRMX Nova TX2 RDM (RDM 发射器)	CRMX Nova RX RDM (RDM 接收器)	MoonLite
Model code (Order code)型号	IN-RFX1 (800-3001)	IN-RTX2 (800-2101)	IN-RRX1 (800-2001)	IN-MFX1 (800-2201)
Supported protocols支持协议				
USITT DMX-512 (1986 & 1990) and DMX512-A	Yes	Yes	Yes	Yes
Art-Net I, II & 3, ETCNet 2 & 3, Strand ShowNet, Streaming ACN, Pathport, KiNet V1 & V2	Yes, input any protocol and output any protocol	Yes, input any protocol	No	No
RDM ANSI E1.20	Yes	Yes	Yes	Yes
Works with CRMX SuperNova RDM Controller	Yes	Yes	Yes	Yes
Firmware upgrade	Ethernet/ Over the air	Ethernet/ Over the air	XLR/ Over the air	XLR/ Over the air/ Bluetooth
DMX interface DMX参数				
Number of universes supported通道数	1	2	1	1
Full DMX fidelity and frame integrity全DMX信息和帧整合	Yes	Yes	Yes	Yes
Error correction and packet recovery纠错和信息包修复	Yes	Yes	Yes	Yes
Frame synchronization帧同步	Less than 0.01 ms	Less than 0.01 ms	Less than 0.01 ms	Less than 0.01 ms
End-to-end DMX latency延时	Less than 5 ms	Less than 5 ms	Less than 5 ms	Less than 5 ms
Auto sensing of DMX frame rate and size自动检测帧	Yes	Yes	Yes	Yes
Supported DMX frame rates支持帧率	0.8 - 7352 Hz Transmitter mode / 1 - 830 Hz1 Receiver mode	0.8 - 7352 Hz	1 - 830 Hz1	0.8 - 7352 Hz Transmitter mode / 1 - 830 Hz1 Receiver mode
Number of DMX channels supported通道数	0 - 512	0 - 1024	0 - 512	0 - 512
Loss of DMX input behavior断信号	DMX output will go into high impedance state	Timeout after 1.25 s	DMX driver will go into high impedance state	DMX output will go into high impedance state
ESD protected interfaces 保护界面	Yes	Yes	Yes	Yes
W-DMX™ G2/G3/G4/G4S Compatibility兼容性	Yes, in receive mode	No	Yes	Yes, in receive mode
Power				
High voltage input高瓦输入	100-240VAC / 47-70Hz / 0.12A/ 10W	100-240VAC / 47-70Hz / 0.25A/ 22W	100-240VAC / 47-70Hz / 0.12A/ 10W	No
Low voltage input低瓦输入	12VDC ±20% / 0.6A / 7.5W	12VDC ±20% / 1A / 12W	12VDC ±20% / 0.2A / 2.5W	5VDC / 0.5A / 2.5W
Power over Ethernet PoE供电	Yes	Yes	No	No
Transient protected power inputs输入保护	Yes	Yes	Yes	Yes
RF characteristics				
Modes of operation模式	Transmitter, Receiver	Transmitter	Receiver	Transmitter, Receiver
Automated Cognitive Coexistence共存技术	Yes	Yes	Yes	Yes
Dynamic adaptive frequency hopping调频技术	Yes	Yes	Yes	Yes
Recoverable Radio Packet Error Rate修复率	30%	30%	30%	30%
Operational frequency range工作频率	2402-2480 MHz	2402-2480 MHz	2402-2480 MHz	2402-2480 MHz
RF output in high power mode高功率模式	300 mW (25 dBm)3	300 mW (25 dBm)3	300 mW (25 dBm)3	100 mW (20 dBm)
RF output in normal power mode标准功率模式	100 mW (20 dBm)	100 mW (20 dBm)	100 mW (20 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)
RF output in low power mode低功率模式	35 mW (15 dBm) or 10 mW (10 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)
RF modulation格式	GFSK	GFSK	GFSK	GFSK
Sensitivity at 0.1% Packet Error Rate灵敏度	-96 dBm	-96 dBm	-96 dBm	-96 dBm
Tested link range (High power mode using standard antennas in free line-of-sight)	Up to 1000 m	Up to 1000 m	Up to 1000 m	Up to 300 m
Recovery time upon loss of radio link断接时间	Less than 1 s	N/A	Less than 1 s	Less than 1 s
Approvals				
FCC: 15.247&68 Class B; Canada ICES 003 CE; EN 301 489-1; EN 301 489-3; EN 300 328; SS-EN 61547:2009; EN 60 950; SRRC - China; ARIB STD-T66 - Japan	Yes	Yes	Yes	Yes
Environment				
Operating temperature range (ambient)环境温度	-20° C to +50° C -4° F to 122° F	-20° C to +50° C -4° F to 122° F	-20° C to +50° C -4° F to 122° F	-20° C to +50° C -4° F to 122° F
Humidity湿度	0-90% non-condensing	0-90% non-condensing	0-90% non-condensing	0-90% non-condensing
Physical				
Enclosure外壳	Anodized extruded aluminum	Anodized extruded aluminum	Anodized extruded aluminum	Plastic (ABS)
Dimensions (W x H x D) excluding antenna	110 x 44 x 160 mm 4.3" x 1.7" x 6.3"	220 x 44 x 125 mm 8.6" x 1.7" x 4.9"	110 x 44 x 160 mm 4.3" x 1.7" x 6.3"	100 x 50 x 26 mm 3.9" x 2.0" x 1.0"
Weight	0.8 kg, 1.8 lbs	0.9 kg, 2.0 lbs	0.7 kg, 1.5 lbs	0,135 kg 0.3 lbs
Connectors				
Antenna connector天线	RP-TNC female	RP-TNC female	RP-TNC female	N/A internal antenna
DMX connectors 接头	1 XLR 5-pin female	2 XLR 5-pin male	1 XLR 5-pin female	2 XLR 5-pin; male and female
Ethernet connectors	1 RJ45	1 Neutrik® Ethercon™ RJ45		
DC input	Pluggable terminal strip, Phoenix® MSTB 2.5	Pluggable terminal strip, Phoe-nix® MSTB 2.5	Pluggable terminal strip, Phoenix® MSTB 2.5	USB Micro B
AC input	IEC 320-C14 Male	IEC 320-C14 Male	IEC 320-C14 Male	
Supplied accessories	AC power cord, DC power connector, 2 dBi RP-TNC antenna	AC power cord, DC power connector, 2 dBi RP-TNC antennas	AC power cord, DC power connector, 2 dBi RP-TNC antenna	Velcro

1 Limited by the DMX512-A standard 2 Compatible with W-DMX™ transmitters on the 2.4 GHz band 3 Allowed in North America only

All CRMX products are covered by the United States Patent No. 7,432,803.

户外无线 DMX

凭借突破性的专利识别共存技术,我们的CRMX™技术已成为全球认可的无线控制标准。我们的产品提供前所未有的可靠性,为您无线控制灯具提供充分的信心。我们基于2.4 GHz频率的产品在世界上被广泛地使用。



CRMX Outdoor

CRMX Outdoor是CRMX Nova产品系列的改版,适用于户外使用,具有相同的先进CRMX技术和无线DMX和RDM功能。凭借其安全的金属外壳和集成的减震功能,CRMX Outdoor可以在户外环境使用多年。



**CRMX OUTDOOR FLEX
IP67 RDM /以太网FLEX产品**

CRMX Outdoor Flex可配置为发送器,接收器或中继器,适用于多达512个通道的完整DMX / RDM环境。作为转发器,Outdoor Flex可用于构建远距离的高级网络基础设施,同时还可用作接收器。Outdoor Flex支持有线和无线RDM。

主要特点

- DMX512-A和RDM支持
- 以太网供电支持
- 以太网或有线DMX输入/输出
- 高达1000米的传输范围
- 5毫秒延迟
- 自动识别共存
- 前向纠错
- IP67分类
- 防破坏外壳



**CRMX OUTDOOR RX
IP67 RDM接收器**

CRMX Outdoor RX是一款户外接收器,适用于由CRMX发射器传输的多达512个通道的完整DMX / RDM环境。

主要特点

- DMX512-A和RDM支持
- 高达1000米的传输范围
- 5毫秒延迟
- 自动识别共存
- 前向纠错
- IP67分类
- 防破坏外壳

CRMX Slim

CRMX Slim是一款紧凑且经济高效的无线设备,适用于永久性室内和室外安装。CRMX Slim产品可以轻松安装在灯杆内或任何空间有限的地方。集成的DMX到DALI转换器使其成为DMX和DALI灯具混装项目的完美解决方案。



**CRMX SLIM RX RDM
带DALI的IP65 RDM接收器**

CRMX Slim RX RDM不仅支持完整的512通道DMX和RDM,还支持DALI和DSI。集成的DMX至DALI / DSI转换器最多支持64个DALI地址或16个DALI组以及DALI或DSI广播。它可以通过RDM或SuperNova轻松配置

主要特点

- DMX512-A和RDM支持
- 高达1000米的传输范围
- 5毫秒延迟
- 自动识别共存
- 前向纠错
- IP65分类
- 集成DMX至DALI / DSI桥接



**CRMX SLIM TX
CRMX SLIM TX IP65 DMX发射器**

CRMX Slim TX支持一个完整的DMX,最多可支持512个通道。

主要特点

- 支持DMX512-A
- 高达1000米的传输范围
- 5毫秒延迟
- 自动识别共存
- 前向纠错
- IP65防水级别

CRMX Outdoor specifications	CRMX Outdoor Flex	CRMX Outdoor Receiver
Model code (Order code)	ON-RFX1 (800-4101)	ON-RRX1 (800-4001)
Supported protocols		
USITT DMX-512 (1986 & 1990) and DMX512-A	Yes	Yes
Art-Net I, II & 3, ETCNet 2 & 3, Strand Show-Net, Streaming ACN, Pathport, KiNet V1 & V2	Yes, input any protocol and output any protocol	No
RDM ANSI E1.20		Yes
Firmware upgrade	Ethernet	TIA/EIA-485
Works with CRMX SuperNova RDM controller	Yes	Yes
DMX interface		
Number of universes supported	1	1
Full DMX fidelity and frame integrity	Yes ¹	Yes
Error correction and packet recovery	Yes	Yes
Frame synchronization	Less than 0.01 ms	Less than 0.01 ms
End-to-end DMX latency	Less than 5 ms ²	Less than 5 ms
Auto sensing of DMX frame rate and frame size	Yes	Yes
Supported DMX frame rates	1 – 830 Hz ³ / 0.8 – 7352 Hz	1 – 830 Hz ³
Number of DMX channels supported	0 – 512	0 – 512
Loss of DMX input behavior	DMX driver output will go into high impedance state in receiving and repeating mode. Timeout after 1.25s in transmitting mode	DMX driver output will go into high impedance state
W-DMX™ G2/G3/G4/G4S Compatibility ⁴	Yes, in receive mode	Yes

Power		
High voltage input	100-240VAC / 47-70Hz / 0.12A / 10W	100-240VAC / 47-70Hz / 0.12A / 10W
Transient protected power input	Yes	Yes
RF characteristics		
Modes of operation	Transmitter, Receiver and Repeater	Receiver
Automated Cognitive Coexistence	Yes	Yes
Dynamic adaptive frequency hopping	Yes	Yes
Recoverable Radio Packet Error Rate	30%	30%
Operational frequency range	2402-2480 MHz	2402-2480 MHz
RF output in high power mode	300 mW (25 dBm) ⁵	300 mW (25 dBm) ⁵
RF output in normal power mode	100 mW (20 dBm)	100 mW (20 dBm)
RF output in low power mode	35 mW (15 dBm) or 10 mW (10 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)
RF modulation	GFSK	GFSK
Sensitivity at 0.1% Packet Error Rate	-96 dBm	-96 dBm
Tested link range (High power mode using standard antennas in free line-of-sight)	Up to 1000 m	Up to 1000 m
Recovery time upon loss of radio link	Less than 1 s	Less than 1 s
Approvals		
FCC: 15.247&68 Class B; Canada ICES 003 CE; EN 301 489-1; EN 301 489-3; EN 300 328; SS-EN 61547-2009; EN 60 950; SRRC - China; ARIB STD-T66 - Japan	Yes	Yes

Environment		
Operating temperature range (ambient)	-20° C to +50° C -4° F to 122° F	-20° C to +50° C -4° F to 122° F
Humidity	Ingression protection, submerged down to 1 m	Ingression protection, submerged down to 1 m
Physical		
Enclosure	IP67 Vandal proof housing	IP67 Vandal proof housing
Dimensions (W x H x D) excluding antenna	201 x 244 x 78 mm 7.9" x 9.6" x 3"	201 x 244 x 78 mm 7.9" x 9.6" x 3"
Weight	1.6 kg, 3.5 lbs	1.6 kg, 3.5 lbs
Connectors		
Antenna connector	N female	N female
DMX connector	Pluggable terminal strip, Phoenix® MSTB 2.5	Pluggable terminal strip, Phoenix® MSTB 2.5
AC input	13AWG Pluggable terminal strip	13AWG Pluggable terminal strip
Supplied accessories	2 dBi N antenna	2 dBi N antenna

¹ Not in repeater mode ² Latency increased with repeater ³ Limited by the DMX512-A standard ⁴ Compatible with W-DMX™ transmitters on the 2.4 GHz band ⁵ Allowed in North America only

CRMX Slim specifications	CRMX Slim TX	CRMX Slim RX RDM
Model code (Order code)	OS-DTX1 (800-5101)	OS-RRX1 (800-5001)
Supported protocols		
USITT DMX-512 (1986 & 1990) and DMX512-A	Yes	Yes
RDM ANSI E1.20	No	Yes
Firmware upgrade	TIA/EIA-485	TIA/EIA-485
DALI (converted from DMX)	No	Yes, broadcast/16 groups / 64 short addresses
Works with CRMX SuperNova RDM controller	No	Yes
DMX interface		
Number of universes supported	1	1
Full DMX fidelity and frame integrity	Yes	Yes
Error correction and packet recovery	Yes	Yes
Frame synchronization	Less than 0.01 ms	Less than 0.01 ms
End-to-end DMX latency	Less than 5 ms	Less than 5 ms
Auto sensing of DMX frame rate and frame size	Yes	Yes
Supported DMX frame rates	0,8 – 7352 Hz	1 – 830 Hz ¹
Number of DMX channels supported	0 – 512	0 – 512
Loss of DMX input behavior	Timeout after 1.25 s	DMX driver output will go into high impedance state
W-DMX™ G2/G3/G4/G4S Compatibility ²	No	Yes

Power		
High voltage input	100-240VAC / 47-70Hz / 0.12A / 10W	100-240VAC / 47-70Hz / 0.12A / 10W
Transient protected power input	Yes	Yes
RF characteristics		
Modes of operation	Transmitter	Receiver
Automated Cognitive Coexistence	Yes	Yes
Dynamic adaptive frequency hopping	Yes	Yes
Recoverable Radio Packet Error Rate	30%	30%
Operational frequency range	2402-2480 MHz	2402-2480 MHz
RF output in high power mode	300 mW (25 dBm) ³	300 mW (25 dBm) ³
RF output in normal power mode	100 mW (20 dBm)	100 mW (20 dBm)
RF output in low power mode	35 mW (15dBm) or 10 mW (10 dBm)	35 mW (15 dBm) or 10 mW (10 dBm)
RF modulation	GFSK	GFSK
Sensitivity at 0.1% Packet Error Rate	-96 dBm	-96 dBm
Tested link range (High power mode using standard antennas in free line-of-sight)	Up to 1000 m	Up to 1000 m
Recovery time upon loss of radio link	N/A	Less than 1 s

Approvals		
FCC: 15.247&68 Class B; Canada ICES 003 CE; EN 301 489-1; EN 301 489-3; EN 300 328; SS-EN 61547-2009; EN 60 950; SRRC - China; ARIB STD-T66 - Japan	Yes	Yes
Environment		
Operating temperature range (ambient)	-20° C to +50° C -4° F to 122° F	-20° C to +50° C -4° F to 122° F
Humidity	Water jets protected	Water jets protected

Physical		
Enclosure	IP65 PC Plastic	IP65 PC Plastic
Dimensions (W x H x D) excluding antenna	90 x 174 x 40 mm 3.5" x 6.8" x 1.6"	90 x 174 x 40 mm 3.5" x 6.8" x 1.6"
Weight	0.25 kg, 0.5 lbs	0.25 kg, 0.5 lbs

Connectors		
Antenna connector	N female	N female
DMX connector	Screwless terminal 0.08-0.5 mm ² / 20-28AWG	Screwless terminal 0.08-0.5 mm ² / 20-28AWG
DALI connector	Screwless pluggable terminal 0.5-1.3 mm ² / 16-28AWG	Screwless pluggable terminal 0.5-1.3 mm ² / 16-28AWG
AC input	Screwless pluggable terminal 0.5-1.3 mm ² / 16-28AWG	Screwless pluggable terminal 0.5-1.3 mm ² / 16-28AWG
Supplied accessories	2 dBi N antenna	2 dBi N antenna

¹ Limited by the DMX512-A standard ² Compatible with W-DMX™ transmitters on the 2.4 GHz band ³ Allowed in North America only



TiMoTwo™

随着我们的技术提升到新的水平,我们很自豪能够发布我们的下一代无线DMX通信。正在申请专利的DMXmesh™选项,减少的RF占用空间和蓝牙兼容性使TiMoTwo成为无线DMX最可靠和最有用的无线电模块。

我们的TiMoTwo是一个完全集成的DMX / RDM模块,提供无线固件升级, SMT安装,集成在芯片上的天线以及用于外部天线的U.F.L连接器。



蓝牙支持

- 使用便携式设备实现轻松调试和照明控制
- 通过蓝牙更新到最新固件
- 通过蓝牙支持DMX (在TX模式下)
- 使用我们的开放式蓝牙API构建您自己的照明控制应用程序



DMXmesh™

- 扩展无线通信范围
- 实现灵活的夹具放置
- DMXmesh™, 但支持单个DMX控制
- RDM监控和配置



更强的通道共享技术

- 动态RF传输可减少RF占用空间
- 改善干扰检测
- 提高可靠性

特性

- 蓝牙支持
- 完全RDM支持
- 正在申请专利的无线DMXmesh™
- 接收器或发送器灵活模式
- 无线软件升级
- 内部和外部天线
- DMX 窗口功能
- RDM UID 绑定功能
- 支持接收CRMX, W-DMX™G2, G3, G4和G4S
- FCC第15部分模块化认证•符合ETSI EN 300 328 v2.1.1
- 接收器模式下的平均功耗为40mA, 发射器模式下为250mA•32.5mm x 18.5mm SMT模块
- 与TiMoOne的占面和针脚兼容



网状网络支持

在网状网络设置中,所有灯具都相互连接。所有灯具都有助于将DMX数据转发到同一网络中的所有其他灯具。这使得设置非常灵活,易于安装和灯具控制,而无需规划发射器,中继器和接收器。

LumenRadio正在申请专利的DMXmesh™技术是一款无线连接游戏的改变者。建筑和建筑照明的安装和无线调试时间将大大缩短,无需进行现场调查或无线DMX分布的复杂规划。以前无线灯光控制的瓶颈将成为过去的记忆。DMXmesh™技术将让您专注于重要的事情;照明,而不是DMX的分布。

CONTACT