

## Stardust



## Eight Universe DMX/RDM transmitter with Ethernet, WiFi and Bluetooth

Stardust is the problem solver for the most demanding users and situations. Featuring eight universes of CRMX and multiple connectivity options, it is the most sophisticated Wireless DMX system on the market. With the introduction of Cognitive Coexistence with Fleet Alliance it has the reliability you've come to trust, with the universes you need.

Tailor your equipment to meet your specific needs with accessories such as V-Lock battery mount, rack mount, and wall mount.

**Fleet Alliance** enables expansion of your universes beyond eight as the transmitters automatically can coordinate the spectrum, providing many more universes without the need for frequency planning.

**Linking Key** encrypts the CRMX transmission with user specified keys, making it possible to move between CRMX networks in a completely new, smooth, way.

- Eight universe CRMX transmitter
- DMX/RDM, sACN and Art-Net 1-4
- Ethernet, 5 GHz WiFi and Bluetooth
- Configuration via web portal, app or front panel
- Compatible with CRMX and W-DMX G3/G4s





#### **EIGHT UNIVERSE TRANSMITTER**

#### **Stardust Specifications**

Supported Protocols DMX / RDM sACN / Art-Net 1-4 CRMX W-DMX G3 / G4s Ethernet WiFi 802.11b/g/n/ac Bluetooth 5.0 RF Characteristics Frequency: 2402-2480 MHz Built on TimoTwo Fixed 5ms latency 128-bit encryption Forward Error Correction Connectors Ethernet: RJ45 Antennas: 2dBi RP-TNC DC: 2.5mm/5.5mm Barrel AC: powerCON TRUE1

**COGNITIVE COEXISTENCE** 

Power PoE IEEE 802.3at DC 10-20 V Backup battery (15 minutes) AC 100-240 VAC

#### Physical

FLEET ALLIANCE

IP20 Aluminium enclosure Color screen and rotary knob M10 and 3/8" Threads Accessories for V-lock battery-, rack- and wall mount.



## Aurora



Aurora is the flexible unit able to transmit or receive one universe of DMX/RDM with several connectivity options. Using the intuitive color screen to change settings on the fly and move between universes, it is powerful enough for single universe transmissions as well as being a receiver packing the most advanced features





## Luna

Luna is the essential flex unit that gets the job done, being able to transmit DMX or receive DMX/RDM for one universe. Featuring the same reliable CRMX as all other devices from LumenRadio it also features Bluetooth connectivity in a compact and rugged format.

## SINGLE UNIVERSE FLEX

**COGNITIVE COEXISTENCE** 



## 💁 lumenradio

With groundbreaking patented Cognitive Coexistence technology, our CRMX™ technology for wireless DMX offers unprecedented reliability and has become the de-facto wireless lighting control standard across the globe.

#### CONTACT

#### Headquarters

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#### FEATURES

FEATURES

• DMX/RDM (in RX) • Bluetooth

• Configuration via app

• Single universe CRMX Flex unit

• Compatible with CRMX and W-DMX G3/G4s

- Single universe CRMX Flex unit
- DMX/RDM, sACN and Art-Net 1-3
- 5 GHz WiFi and Bluetooth
- Configuration via app or front panel • Compatible with CRMX and W-DMX G3/G4s

#### Sales office





# MoonLite



MoonLite<sup>™</sup> is a brand new patent-pending wireless lighting control product with LumenRadio's updated award winning ultra-reliable CRMX technology combined with Bluetooth connectivity and a built-in battery.

By being a wireless DMX transmitter and receiver, MoonLite<sup>™</sup> is truly the Swiss army knife of the wireless DMX world!

#### BUILT ON THE LATEST CRMX TIMOTWO TECHNOLOGY

MoonLite<sup>™</sup> is built on LumenRadio's patented reliable CRMX technology and boosts new features such as:

• Bluetooth connectivity

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- Control and configure your Moonlight through CRMX toolbox app
- Smarter disturbance detection technology, allowing for even more stable connectivity
- Significantly reduced RF footprint with dynamic transmissions



With built-in support for Bluetooth connectivity, MoonLite<sup>™</sup> enables tablet and phone based lighting control softwares to connect directly without the need for extra hardware.

MoonLite<sup>TM</sup> is a state-of-the-art transceiver; thanks to its small size, built-in battery and dual XLR connectors it is ideal for use at clubs, small stage events, corporate events, in theaters and temporary events where wireless DMX connectivity is needed.

MoonLite<sup>TM</sup> has the same reliable functionalities as all LumenRadio's CRMX products, but is updated with even smarter disturbance detection technology, allowing for even more stable connectivity - *and* it comes in a much smaller package.

#### **FEATURES**

- Built on the latest CRMX technology
- DMX transceiver (TX and RX)
- DC power
- Bluetooth connectivity
- Rechargeable battery included (10-12 hours in CRMX RX)
- Check battery status through app
- Color coded pairing indication
- Velcro fastening
- Firmware updates available over Bluetooth or XLR

What better way to control and configure your MoonLite<sup>™</sup> than from the palm of your hand? Using our new CRMX Toolbox app you can quickly identify your Moonlite<sup>™</sup>, check battery status, conduct firmware updates, toggle between receiver and transmitter mode, change output power and much more. The new era of wireless DMX is finally here!



#### **TECHNICAL SPECIFICATIONS**

#### SUPPORTED PROTOCOLS

#### **RF CHARACTERISTICS**

- USITT DMX512, DMX512(1990) & DMX512-A
- Bluetooth 5.0
- Compatible with all CRMX products
- Operational frequency range: 2402-2480 MHz
- Output power levels:
   15mW, 40mW, 100mW

#### CONNECTORS

female and male

• Antenna: Internal

• DC: USB Micro-B

• DMX: 2 XLR, 5-pin gold plated,

#### POWER

• Low voltage input: 5VDC

Bluetooth connectivity Internal antenna Rechargeable battery (10-12 hours in CRMX RX) Male XLR Plastic enclosure DMX passthrough Status LEDs One button operation Link switch Color coded pairing MoonLite on lumenracio USB Micro-B Velcro fastening Female XLR DMX passthrough

Creating Connectivity for a Better Tomorrow

LumenRadio's patented CRMX<sup>™</sup> technology for wireless DMX is today the de-facto wireless lighting control standard in Motion picture lighting, Stage lighting and Architectural lighting industries.

### CONTACT

#### Sweden – Headquarters

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With groundbreaking patented Cognitive Coexistence technology, our CRMX<sup>™</sup> technology for wireless DMX has become the de-facto wireless lighting control standard across the globe. Our Wireless DMX products offers unprecedented reliability and will give you the trust you need to control your fixtures wirelessly. Running on the unlicensed 2,4 GHz frequency all of our products can be used anywhere in the world.



## **CRMX** Outdoor



#### **CRMX OUTDOOR FLEX**

**IP67 RDM/ETHERNET FLEX PRODUCT** 

CRMX Outdoor Flex can be configured either as a transmitter, receiver or repeater for one full DMX/RDM universe of up to 512 channels. As a repeater, the Outdoor Flex can be used to build advanced network infrastructures over long distances while also acting as a receiver. The Outdoor Flex supports both wired and wireless RDM.

### **CRMX OUTDOOR RX**

**IP67 RDM RECEIVER** 

CRMX Outdoor RX is an outdoor receiver for one full DMX/RDM universe of up to 512 channels being transmitted by a CRMX transmitter.

#### **KEY FEATURES**

- DMX512-A and RDM support

- Up to 1000 meter link range
- 5 ms latency
- Automated Cognitive Coexistence
- IP67 classification
- Vandal proof casing

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- Automated Cognitive Coexistence
- IP67 classification
- Vandal proof casing

## **CRMX Slim**

CRMX Slim is a compact and cost efficient wireless unit rated for permanent indoor and outdoor installations. CRMX Slim products can easily be mounted inside lighting poles or anywhere space is limited. The integrated DMX to DALI converter makes it a perfect solution where DMX and DALI fixtures are mixed in the same installation.

#### **CRMX SLIM RX RDM**

#### IP65 RDM RECEIVER WITH DALL

CRMX Slim RX RDM supports not only a full 512 channel universe of DMX and RDM, but also DALI and DSI. The integrated DMX to DALI/DSI converter supports up to 64 DALI addresses or 16 DALI groups as well as DALI or DSI broadcast. It is easily configured over RDM or from SuperNova.

#### **CRMX SLIM TX IP65 DMX TRANSMITTER**

The CRMX Slim TX supports one full DMX universe of up to 512 channels.

#### **KEY FEATURES**

- Up to 1000 meter link range
- 5 ms latency
- Automated Cognitive Coexistence
- Forward Error CorrectionIP65 classification
- Integrated DMX to DALI/DSI bridge

#### **KEY FEATURES**

- Support for DMX512-A
- Up to 1000 meter link range
- 5 ms latency Automated Cognitive Coexistence
- Forward Error Correction

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	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 <sup>1</sup>	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 <sup>2</sup>	Less than 5 ms
Auto sensing of DMX frame rate and frame size	Yes	Yes
Supported DMX frame rates	1 – 830 Hz³/0.8 – 7352 Hz	1 – 830 Hz <sup>3</sup>
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 <sup>4</sup>	Yes, in receive mode	Yes
	se, in receive mode	
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	35 mW (15 dBm) or
	10 mW (10 dBm)	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,	Pluggable terminal strip,
AC input	Phoenix® MSTB 2.5 13AWG Pluggable	Phoenix® MSTB 2.5 13AWG Pluggable
	terminal strip 2 dBi N antenna	terminal strip 2 dBi N antenna
Supplied accessories	Z UDI IN ANTENNA	∠ ubi iv antenña

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

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

CRMX Slim specifications	CRMX Slim TX	CRMX Slim RX RDM
Model code (Order code)	OS-DTX1 (800-5101)	OS-RRX1 (800-5001)
Supported protocols		
JSITT 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
OMX interface		
Number of universes supported	1	1
Ull DMX fidelity and frame integrity	Yes	Yes
Error correction and packet recovery Frame synchronization	Yes Less than 0.01 ms	Yes 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	Yes	Yes
rame size		
Supported DMX frame rates	0,8 – 7352 Hz	1 – 830 Hz <sup>1</sup>
Number of DMX channels supported .oss of DMX input behavior	0 – 512 Timeout after 1.25 s	0 – 512 DMX driver output
		will go into high impedance state
V-DMX™ G2/G3/G4/G4S Compatibility <sup>2</sup>	No	Yes
Power		
High voltage input	100-240VAC / 47-70Hz / 0.12A / 10W	100-240VAC / 47-70H / 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) <sup>3</sup>	300 mW (25 dBm) <sup>3</sup>
RF output in normal power mode	100 mW (20 dBm)	100 mW (20 dBm)
RF output in low power mode	35 mW (15dBm) or	35 mW (15 dBm) or
RF modulation	10 mW (10 dBm) GFSK	10 mW (10 dBm) GFSK
Sensitivity at 0.1% Packet Error Rate	-96 dBm	-96 dBm
Tested link range (High power mode using	Up to 1000 m	Up to 1000 m
standard antennas in free line-of-sight)	op to 1000 m	0010100011
Recovery time upon loss of radio link	N/A	Less than 1 s
Approvals		
FCC: 15.247&68 Class B; Canada ICES 303 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	-20° C to +50° C
	-4° F to 122° F	-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"
Neight	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 mm2 / 20-28AWG	Screwless terminal 0.08-0.5 mm2 / 20-
DALI connector	Screwless pluggable terminal 0.5-1.3 mm2 / 16-28AWG	28AWG Screwless pluggable terminal 0.5-1.3 mm2 16-28AWG
	10-20AVVU	10-20400
AC input	Screwless pluggable terminal 0.5-1.3 mm2 / 16-28AWG	Screwless pluggable terminal 0.5-1.3mm2 16-28AWG

<sup>1</sup> Limited by the DMX512-A standard <sup>3</sup> Allowed in North America only

<sup>2</sup> Compatible with W-DMX<sup>™</sup> transmitters on the 2.4 GHz band



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