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Stardust

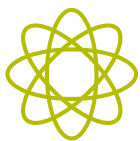## Eight Universe DMX/RDM transmitter with Ethernet, WiFi and Bluetooth

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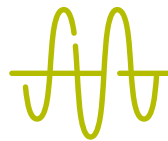
Fleet Alliance enables expansion of your universes beyond eight as the transmitters automatically can coordinate the spectrum, providing many more universes without the need for frequency planning.

Linking Key encrypts the CRMX transmission with user specified keys, making it possible to move between CRMX networks in a completely new, smooth, way.
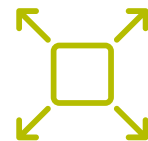
- Eight universe CRMX transmitter
- DMX/RDM, sACN and Art-Net 1-4
- Ethernet, 5 GHz WiFi and Bluetooth
- Configuration via web portal, app or front panel
- Compatible with CRMX and W-DMX G3/G4s

EIGHT UNIVERSE TRANSMITTER   **COGNITIVE COEXISTENCE**   **FLEET ALLIANCE**

Stardust Specifications

Supported Protocols	RF Characteristics	Connectors	Power	Physical
DMX / RDM	Frequency: 2402-2480 MHz	Ethernet: RJ45	PoE IEEE 802.3at	IP20 Aluminium enclosure
sACN / Art-Net 1-4	Built on TimoTwo	Antennas: 2dBi RP-TNC	DC 10-20 V	Color screen and rotary knob
CRMX	Fixed 5ms latency	DC: 2.5mm/5.5mm Barrel	Backup battery (15 minutes)	M10 and 3/8" Threads
W-DMX G3 / G4s	128-bit encryption	AC: powerCON TRUE1	AC 100-240 VAC	Accessories for V-lock battery-,
Ethernet	Forward Error Correction			rack- and wall mount.
WiFi 802.11b/g/n/ac				
Bluetooth 5.0				

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Aurora
Single universe DMX/RDM transceiver with WiFi and Bluetooth

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

FEATURES
- 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

SINGLE UNIVERSE FLEX **COGNITIVE COEXISTENCE** **COLOUR SCREEN**

Luna
Single universe DMX transceiver with Bluetooth

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.

FEATURES
- Single universe CRMX Flex unit
- DMX/RDM (in RX)
- Bluetooth
- Configuration via app
- Compatible with CRMX and W-DMX G3/G4s

SINGLE UNIVERSE FLEX **COGNITIVE COEXISTENCE** **BLUETOOTH**

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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.

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Creating Connectivity for a Better Tomorrow

MoonLite™ 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™ is truly the Swiss army knife of the wireless DMX world!

BUILT ON THE LATEST CRMX TIMOTWO TECHNOLOGY

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

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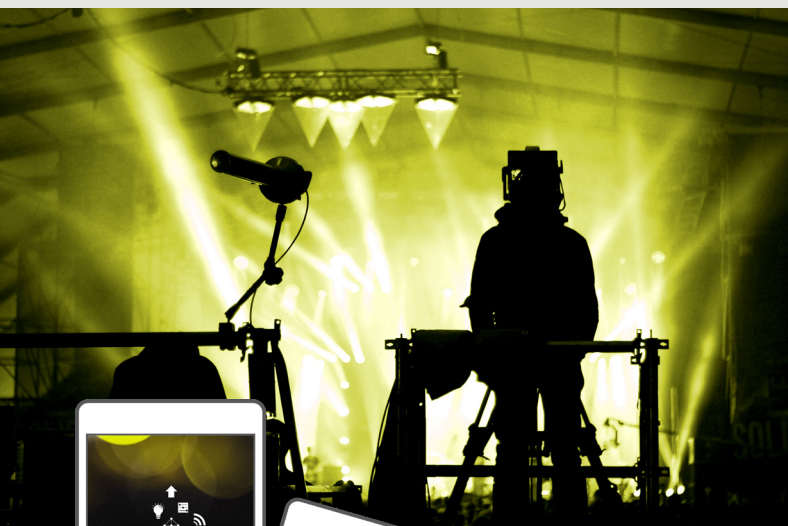- Significantly reduced RF footprint with dynamic transmissions

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

MoonLite™ 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™ 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™ than from the palm of your hand? Using our new CRMX Toolbox app you can quickly identify your Moonlite™, 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!

![lumenradio logo] **lumenradio**
Creating Connectivity for a Better Tomorrow

TECHNICAL SPECIFICATIONS

SUPPORTED PROTOCOLS

- USITT DMX512, DMX512(1990) & DMX512-A
- Bluetooth 5.0
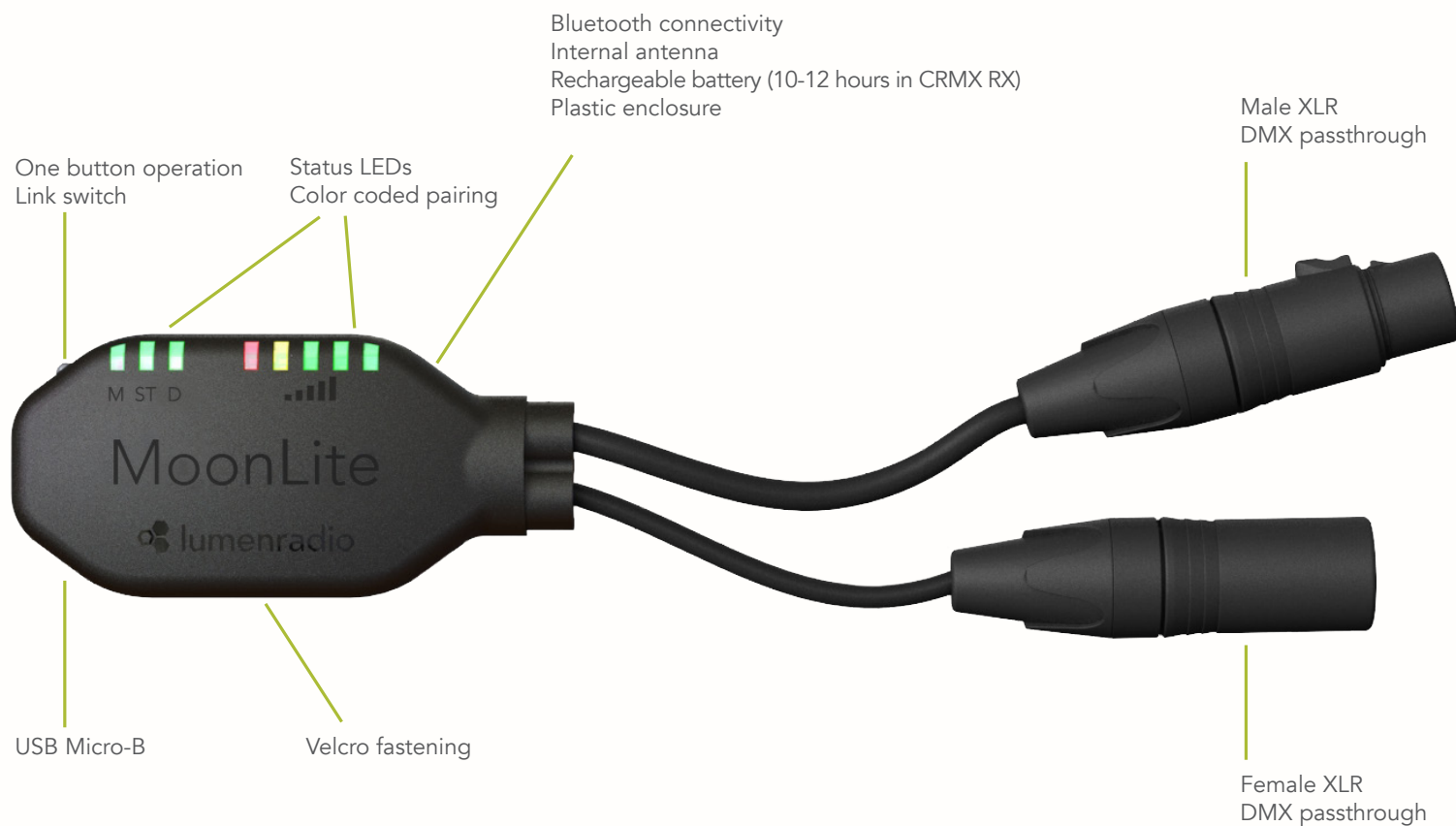- Compatible with all CRMX products

RF CHARACTERISTICS

- Operational frequency range: 2402-2480 MHz
- Output power levels: 15mW, 40mW, 100mW

CONNECTORS

- DMX: 2 XLR, 5-pin gold plated, female and male
- Antenna: Internal
- DC: USB Micro-B

POWER

- Low voltage input: 5VDC

Bluetooth connectivity
Internal antenna
Rechargeable battery (10-12 hours in CRMX RX)
Plastic enclosure

Male XLR
DMX passthrough

One button operation
Link switch

Status LEDs
Color coded pairing

M ST D

MoonLite
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USB Micro-B

Velcro fastening

Female XLR
DMX passthrough

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Creating Connectivity for a Better Tomorrow

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

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Creating Connectivity for a Better Tomorrow

OUTDOOR WIRELESS DMX

With groundbreaking patented Cognitive Coexistence technology, our CRMX™ 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 is an adaptation of the CRMX Nova product line for outdoor use with the same advanced CRMX technology and features for wireless DMX and RDM distribution. With its discreet and secure metal housing and integrated shock absorption, CRMX Outdoor is built to withstand any outdoor environment for many years.

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.

KEY FEATURES
- DMX512-A and RDM support
- Power over Ethernet support
- Ethernet or wired DMX input/output
- Up to 1000 meter link range
- 5 ms latency
- Automated Cognitive Coexistence
- Forward Error Correction
- IP67 classification
- Vandal proof casing

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
- Forward Error Correction
- 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 DALI

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.

KEY FEATURES
- DMX512-A and RDM support
- Up to 1000 meter link range
- 5 ms latency
- Automated Cognitive Coexistence
- Forward Error Correction
- IP65 classification
- Integrated DMX to DALI/DSI bridge

CRMX SLIM TX
IP65 DMX TRANSMITTER

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

KEY FEATURES
- Support for DMX512-A
- Up to 1000 meter link range
- 5 ms latency
- Automated Cognitive Coexistence
- Forward Error Correction
- IP65 classification

CRMX Outdoor specifications

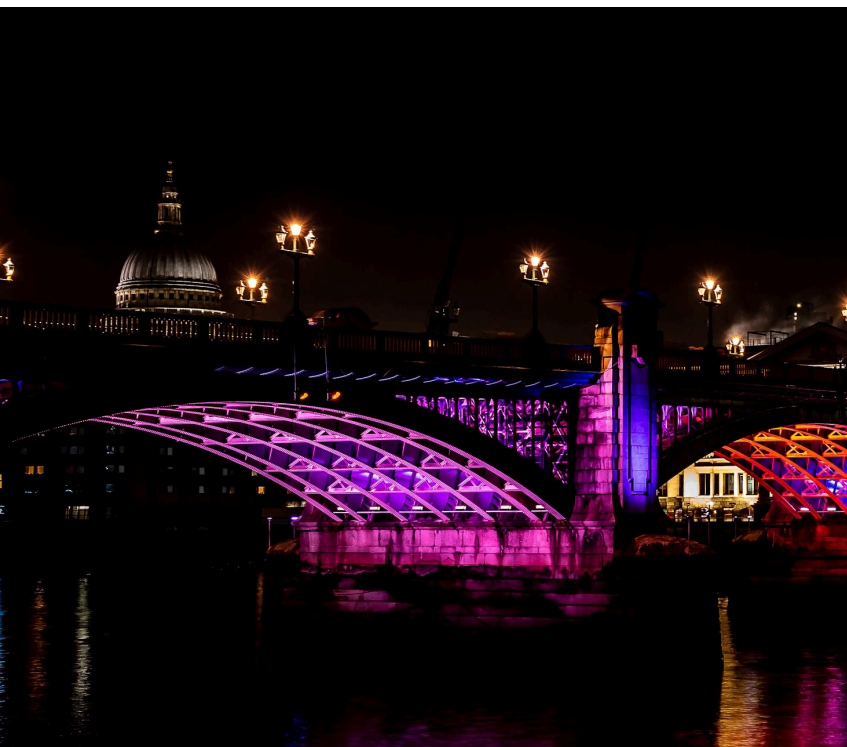| CRMX Outdoor specifications	CRMX Outdoor Flex	CRMX Outdoor Receiver
Model code (Order code)	ON-RFX1 (800-4101)	ON-RRX1 (800-4001)
Supported protocols		
USITT DMX-512 (1986 & 1990) and DMX512-A	Yes	Yes
Art-Net I, II & 3, ETCNet 2 & 3, Strand Show-Net, Streaming ACN, Pathport, KiNet V1 & V2	Yes, input 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[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 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 mm2 / 20-28AWG	Screwless terminal 0.08-0.5 mm2 / 20-28AWG
DALI connector	Screwless pluggable terminal 0.5-1.3 mm2 / 16-28AWG	Screwless pluggable terminal 0.5-1.3 mm2 / 16-28AWG
AC input	Screwless pluggable terminal 0.5-1.3 mm2 / 16-28AWG	Screwless pluggable terminal 0.5-1.3mm2 / 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

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Galileo

Single Universe DMX/RDM Transmitter or Receiver for Installation

Reliable wireless DMX - now in an install friendly form factor to enhances creativity and reduce installation costs in all permanent installation projects.

By using either DIN-rail cabinets or IP rated enclosures, Galileo is suitable for all Indoor and Outdoor installation projects where reliability is a requirement.

Based on our trusted CRMX technology, Galileo brings you all the advanced features such as Cognitive Coexistence, 5ms fixed latency, 128 bit encryption, error correction and much more.

SINGLE UNIVERSE

Supports one DMX/RDM universe of up to 512 channels with full refresh rate.

UNIQUE RELIABILITY

Patented technologies and Cognitive Coexistence for unique reliability.

BLUETOOTH

For easy and quick configuration via the CRMX Toolbox App.

FEATURES

- Single Universe Transmitter (TX) or Receiver (RX)
- Transmit CRMX or W-DMX G3/G4S (TX)
- Receive all CRMX and W-DMX modes (RX)
- DMX512-A and RDM support
- Bluetooth configuration via App
- Repeater in-app upgrade
- DIN-rail form factor
- RDM proxy (TX)

Multiple Galileo units can be combined to transmit several DMX universes, allowing easy system expansion. It is also compatible with all other CRMX and W-DMX products available on the market. Monitoring and configuration can easily be done as RDM is supported in all Galileo devices, as well as Bluetooth connectivity for configuration.

![lumenradio logo]

INSTALLATION MADE EASY

RDM

When using the RDM (Remote Device Management) available in Galileo you are able to configure and monitor fixtures and receiver devices, both wired and wireless, using any RDM controller.

At a later stage this can also be done with the CRMX Toolbox App using the Bluetooth connectivity.

Repeater

To make planning easier, a repeater functionality can be added to any Galileo RX device using an in-app upgrade. This allows for quick improvements of the signal to places where reception needs an extra boost.

The improved repeater functionality also allows for multiple repeater hops, providing coverage over vast distances.
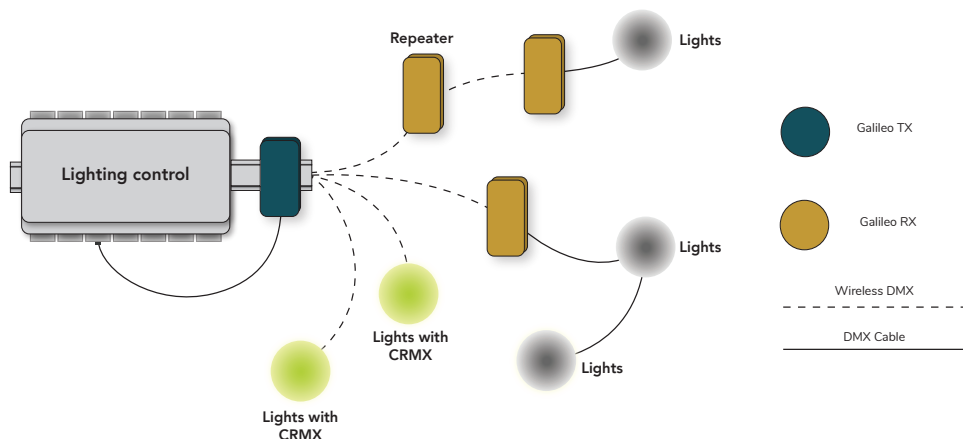
Linking Key

With user defined security keys the ability to clone transmitters is now at your fingertips. This feature allows for improved redundancy and reduces time for troubleshooting or repairs.

SYSTEM OVERVIEW

The network consists of one Galileo TX linked to an unlimited number of receivers; either fixtures from our OEM partners or LumenRadio products.

Use any lighting controller to provide Galileo TX with DMX/RDM data through the 3-pin pluggable connector. The radio link ranges hundreds of meters and is compatible with all CRMX and W-DMX devices on the market.

SPECIFICATIONS

Supported Protocols RX
DMX / RDM
CRMX² and CRMX Classic
W-DMX G3 / G4 / G4S / G5
Bluetooth 5.0

Supported Protocols TX
DMX / RDM
CRMX Classic
W-DMX G3 / G4S
Bluetooth 5.0

RF Characteristics
2402-2480 MHz frequency
7 - 280 mW output power
5ms latency
128-bit encryption
Forward Error Correction

Physical
DIN-rail 2 module width
RP-SMA antenna connector
12-24 VDC/VAC pluggable screw terminal
DMX/RDM 3 pin pluggable screw terminal

![lumenradio logo]

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.

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