APPLICATION AREA

The CRMX Galileo is a wireless lighting control product. It is designed to be used indoors, or outdoors when installed in a IP65 rated envorinmental enclosure. CRMX Galileo replaces the cable in DMX-512A systems. It can be used together with any CRMX compatible device using either CRMX Classic or CRMX² modes. CRMX Galileo can also be configured to operate in W-DMX mode where it can operate together with W-DMX compatible devices.

GENERAL

All personnel must acquaint themselves with the instructions in this leaflet before using this product. This product must not be used if damaged. For additional documentation for CRMX Galileo, scan the QR code on this leaflet, or visit www.lumenradio.com.

WARRANTY

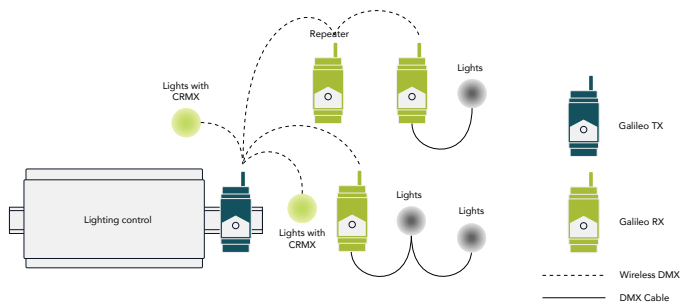All warranty claims for this product shall be directed to the local distributor/reseller. Warranty is deemed void if:

(1) The product is modified, repaired or otherwise altered unless it has been directed by LumenRadio AB; or

(2) The serial number on the product (the QR code) has been compromised.

CRMX Galileo
by LumenRadio

Scan for additional information

www.lumenradio.com

SYSTEM OVERVIEW

A CRMX system replaces the need to use expensive and cumbersome DMX cables. Place one Galileo TX unit in close proximity to the lighting controller and let it wirelessly transmit the DMX and RDM data to Galileo RX units, or other CRMX receivers – for instance built-in receivers in wireless-ready fixtures from any of LumenRadio's partners.

DMX data can locally be daisy chained with cable between fixtures that are physically close to each other.

If range needs to be extended it is possible to operate a Galileo RX unit as a repeater (available as an optional upgrade). A repeater receives the wireless signal and retransmits it for receivers that otherwise would be out of range. A repeater will also output the DMX and RDM data locally on it's data port – just like any receiver would do.

BOX CONTENT

1 pc. CRMX Galileo unit	1 pc. RP-SMA antenna
1 pc. 2pin terminal plug for power	1 pc. 3pn terminal plug for data
1 pc. Quick start instruction (this leaflet)	

SPECIFICATIONS

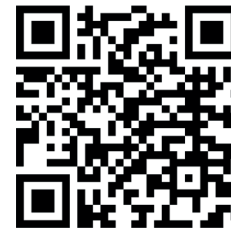|	
Power supply AC:	24 VAC +/- 10% 50/60 Hz
Power supply DC:	12-24 VDC +/- 10%
Max. power consumption:	2.5W
Self-healing fuse:	Yes
Rated wire size:	0.2 – 1.5 mm²
	24 – 16 AWG
IP rating:	IP X0
Dimensions (W x H x D):	36.5 x 93 x 58.7 [mm]
Weight:	85 g
Antenna connector:	RP-SMA
Operating temp. range:	-20 to +55 °C
Storage temp. range:	-30 to +80 °C
Humidity:	0 – 90% non-condensing
Frequency range:	2402 – 2480 MHz (ISM band)
Max. RF output power:	100 mW (280 mW in US)
Supported protocols:	DMX-512A, RDM
Supported RF protocols (TX):	CRMX, W-DMX G3 & G4S
Supported RF protocols (RX):	CRMX, CRMX², W-DMX G3, G4, G4S & G5

SAFETY

Only qualified electricians or service personnel trained by LumenRadio may perform installations with this product. Always follow local electrical code and regulations.

If installed using a 24 VAC isolation transformer, this must be performed in accordance with IEC 61558-1.

Do not use the product if the product is damaged. Only use cables within the specified conductor sizes. This product may not be connected directly to main power.

INSTALLATION

1. Verify that the product has no physical damage.
2. Clip the unit onto a DIN rail. If installed outdoors, this must be performed in a IP65 rated environmental enclosure.
3. Mount the antenna, or of installed in an enclosure – mount the antenna coax cable.
4. Connect the power supply in accordance with specified voltage.
5. Connect the DMX cable to the DMX interface.
6. Power on and verify that the unit is powered up correctly – Galileo units performs a chase with white color on the three front LEDs at power-on to make it clearly visible that it is starting up.

LEGAL

CRMX is a trademark of LumenRadio AB, W-DMX is a trademark of Wireless Solution Sweden AB.
Wireless Solution Sweden AB is a fully-owned subsidiary of LumenRadio AB.
DMX-512A and RDM refers to ANSI national standards developed and maintained by ESTA, Entertainment Services and Technology Association.

This product makes use of US patents 7,432,803; 8,457,023; 9,208,680; EU patents EP 2415317, EP 2803248, China patents CN 102369774, CN 104041189B and others.
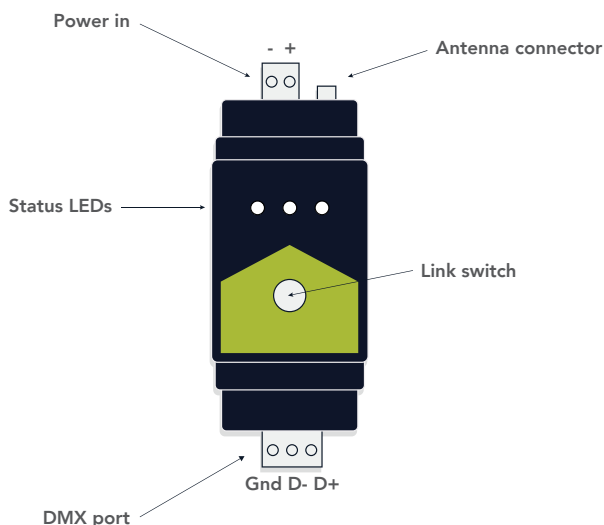
Version of this quick start guide: Version 1 (2023-04-10)

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IC ID: 8879A-TIMOMWAN301

E115504
UL62368-1
CSA C22.2 No. 62368-1

YOUR GALILEO UNIT

Power in

- +   Antenna connector

Status LEDs

Link switch

Gnd D- D+

DMX port

LINK SWITCH FUNCTIONS

The link switch performs the basic link and unlink functions, but combinations of presses can perform some special functions. All functions are listed in the tables below. In the tables below short press is <0.5 s, long press is >3 s.

BASIC FUNCTIONS

Push	Function
Short	**On transmitter:** Link available receivers **On receiver:** No function **On repeater:** Link available receivers
Long	**On transmitter:** Unlink all receivers **On receiver:** Unlink this receiver **On repeater:** Unlink all receivers, or unlink this repeater if pressed again within 5 seconds after unlink process.

SPECIAL FUNCTIONS

The special functions are accessed by pressing the button momentarily a number of times, followed by a long press (> 3 s).

Push	Function
2 x short + long	Enable/disable BLE.
3 x short + long	Galileo TX: Select RF protocol.
5 x short + long	Galileo RX: Enable/disable repeater (if option is installed)
7 x short + long	Reset BLE PIN code.

STATUS LEDS

MODE

Transmitter

Receiver

Repeater

BLE enabled

BLE connected

DATA

DMX data

RDM activity

SINGAL (TX)

Transmitting

Linking receivers

Unlinking receivers

SINGAL (RX)

> 70%

30 – 70%

< 30%

No link

Not linked

IDENTIFY

When connecting via BLE using the CRMX Tooolbox app, or when using RDM, it is possible to identify a device to know what device is accessed. When doing this, all LEDs will flash rapidly.

LINKING

To be able to transmit data through the system, receivers needs to be linked to the appropriate transmitter, or repeater.

1. Make sure the receivers are unlinked and that they are withing communication range.
2. If receiver is already linked, follow the steps in the unlink section.
3. Press the link switch momentarily on the transmitter.
4. Wait for the linking process to finish.

UNLINKING

Unlinking can be done directly from the transmitter, which wil lunlink all currently powered receivers that are within range that is linked to this transmitter. This is done by holding the link switch for >3 s.

Unlinking can also be done on one specific receiver by holding its link switch pressed for >3 s.

USING REPEATERS

When the range needs to be expanded, a receiver can be upgraded to repeaters (software license required). Before a repeater can be linked to receivers it first need to be linked to a transmitter.

To unlink a repeater from a transmitter, its receivers first needs to be unlinked. Repeating the unlink step within 5 seconds after the unlinking process has finished will unlink the repeater from its transmitter.

RDM (REMOTE DEVICE MANAGEMENT)

Galileo supports RDM both as transmitter and receiver (including repeater mode).

llows configuration of RDM capable fixtures, allowing DMX start address and DMX personality to be set among other things. It also allows for monitoring the system, such as detecting if devices goes offline, monitor receivers' signal levels, and much more.

Available RDM functions varies depending on the controller and the fixtures.

A Galileo TX incorporates an RDM Proxy that needs to be enabled before any downstream devices can be discovered. This can be done either by changing the DMX personality of the transmitter, via the link switch button, or from the CRMX Toolbox app.

BLUETOOTH

Bluetooth, or BLE, is enabled by default. It is recommended to disable the BLE interface after installation has been completed, or to protect the BLE interface by setting a PIN code.

It is possible to send DMX data to the Galileo device via BLE. There are several apps that supports this that can be downloaded from App Store. When sending DMX data to a receiver or a repeater, the DMX data is only forwarded to the local DMX interface. But when DMX data is sent via BLE to a transmitter device, the DMX data will be sent to the entire network.

DMX via BLE is limited in performance due to the limitations of BLE, and is not suitable for fast effects.

FIRMWARE UPDATES

The software in your Galileo device, called firmware, is continuously improved and new functions may be added. It is therefore recommended to make sure you keep the devices up to date. In all cases, make sure you have the latest firmware installed before commissioning a new system.

Firmware can be updated via Bluetooth using the CRMX Toolbox app. The latest firmware is automatically downloaded from LumenRadio's cloud and pushed to your device when you initiate an update.

INSTALLING REPEATER OPTION

Galileo RX units can have an optional repeater option installed. It is installed using the CRMX Toolbox app and requires you to have an account registered through the app. To purchase this option, reach out to your local reseller.

CRMX TOOLBOX

CRMX Toolbox is an app available from LumenRadio to configure CRMX devices. It is available for iOS and Android and can be downloaded directly from Apple App Store or Google Play Store.

Download on the App Store   GET IT ON Google Play