CRMX Stardust

User Manual

LumenRadio AB

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Safety information

WARNING / WARNUNG / ATTENTION / ADVERTENCIA /
VARNING / ADVARSEL / VAROITUS / ADVARSEL

This product must be earthed.

Das Gerät muss an eine geerdete Steckdose angeschlossen werden.

Cet appareil doit être branché à une prise de terre.

Este aparato se debe conectar a una toma de tierra.

Apparaten skall anslutas till jordat uttag.

Apparatet må tilkoples jordet stikkontakt.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

Apparatets stikprop skal tilsluttes en stikkontakt med jord.

Product caution



This product may never be powered on without having the antennas properly mounted. Doing so may result in permanent damage to the device.

English

1. Please read these instructions and safety instructions carefully before using this product.
2. Keep these instructions for future reference.
3. Never plug the product into the mains supply while it is still in its packaging. Never cover during use.
4. Only use indoors and in dry spaces, except where otherwise explicitly stated.
5. Verify that the product has not been damaged in transport before you make use of it.
6. Keep the product out of the reach of animals, children and persons who require supervision.
7. This product is intended for professional use only.
8. Always place the product on a stable, solid and flat base or safely secure it.
9. Do not use the product near hot surfaces or objects.
10. The mains cable must be regularly and carefully checked for damage to the cable, the plug and other parts. In the event of damage, the product must not be used until the mains cable has been replaced. If the product needs to be cleaned, the adapter or mains cable must be disconnected from the mains supply.
11. Repairs must only be carried out by a qualified person.
12. Note that the connected voltage and current corresponding to the sticker on the product.
13. Never submerge the product or the mains cable in water or any other liquid, in order to prevent electric shocks, fire, injury and other hazards.
14. Never carry the product by the cables and do not put the cord around sharp edges.

Deutsch

1. Bitte lesen Sie diese Hinweise und Sicherheitshinweise sorgfältig durch, bevor Sie dieses Produkt verwenden.
2. Bewahren Sie diese Anleitung zum späteren Nachschlagen auf.
3. Das Produkt nie anschließen, wenn es sich in der Verpackung befindet- Außerdem darf das Produkt beim betrieb nicht abgedeckt werden.
4. Nur in trockenen Innenräumen verwenden sofern nicht ausdrücklich anders angegeben!
5. Versichern Sie sich vor der Verwendung, das dieses Produkt beim Transport nicht beschädigt wurde.
6. Produkt außerhalb der Reichweite von Kindern, Tieren und zu beaufsichtigenden Personen aufbewahren.
7. Dieses Produkt ist nur für den professionellen Gebrauch bestimmt.
8. Stellen Sie das Produkt immer auf eine stabile, feste und flache Fläche auf.
9. Verwenden Sie das Produkt nicht in der Nähe von warmen Oberflächen oder Objekten.
10. Das Netzkabel muss regelmäßig und sorgfältig auf Schäden am Kabel, Stecker und anderen Teilen kontrolliert werden. Bei einem Schaden darf das Produkt erst wiederverwendet werden, wenn das Netzkabel repariert/ersetzt ist. Wenn das Produkt gereinigt werden soll, muss das Netzkabel vom Stromnetz getrennt werden.
11. Eventuell anfallende Reparaturen müssen von einer qualifizierten Person ausgeführt werden.
12. Beachten Sie, dass die angeschlossene Spannung und Strom dem entsprechen, was auf dem Typenschild angegeben ist.
13. Tauchen Sie das Produkt oder das Anschlusskabel niemals in Wasser oder in andere Flüssigkeiten ein, um einen Stromschlag, Brand, Verletzungen oder andere Gefahren zu vermeiden.
14. Das Produkt nicht am Netzkabel tragen und das Netzkabel nicht um scharfe Kanten legen.

Introduction

This user manual refers to version 1.5.0 or later.

Welcome to the large family of users of LumenRadio's world-leading wireless DMX system. We hope that you will enjoy your brand new devices. We, at LumenRadio, have tailored this wireless DMX system to deliver reliability at its best. No matter if you're using them at a night-club, a community theatre or on the set of a feature film, you should be able to trust its cable-like reliability, but without the hassle of cables.

Wireless DMX in a nutshell

Wireless DMX can be used in many different setups, may it be one single universe being transmitted from one point over a distance to one receiver. This is what is called point-to-point, and is a common scenario when shooting wireless DMX over a distance where cable is not possible. The cable is simply replaced with a wireless cable with a fixed latency of 5 ms.

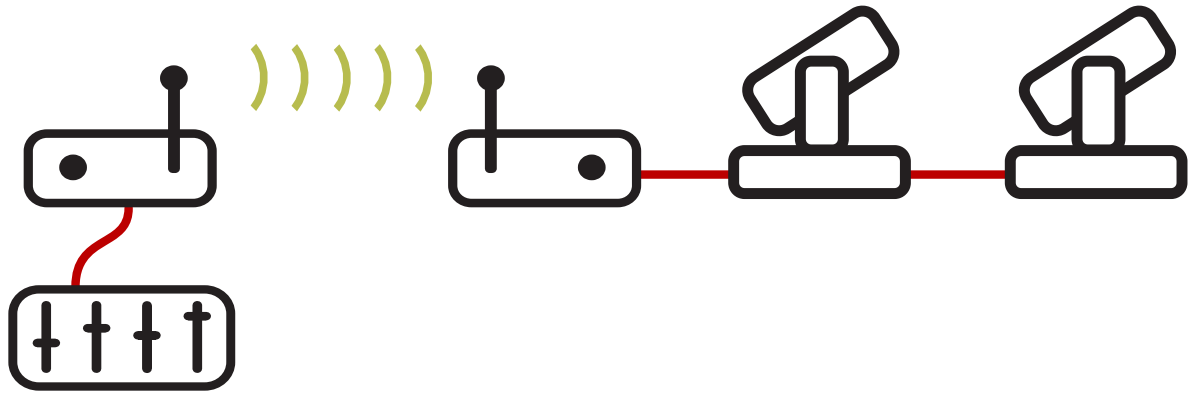


Figure 1: One DMX universe in a point-to-point setup

It is simple to just add more receivers to a universe of wireless DMX to create a wireless splitter, where the same DMX data is outputted with a synchronisation of less than 0.1 ms. This is what is called a point-to-multipoint setup.

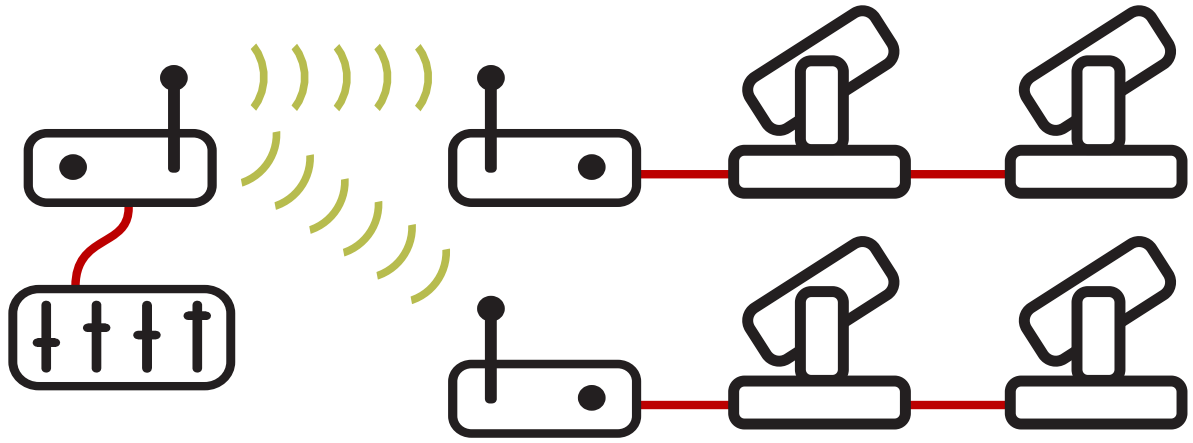


Figure 2: One universe in a point-to-multipoint setup

It is possible to have multiple universes being transmitted simultaneously in what's called a multipoint-to-multipoint setup. Simply link each receiver to the transmitted universe you want it to output. The system will automatically exchange encryption keys and other security parameters. The system will coordinate the frequency usage to avoid collisions so that multiple universes can be transmitted simultaneously.

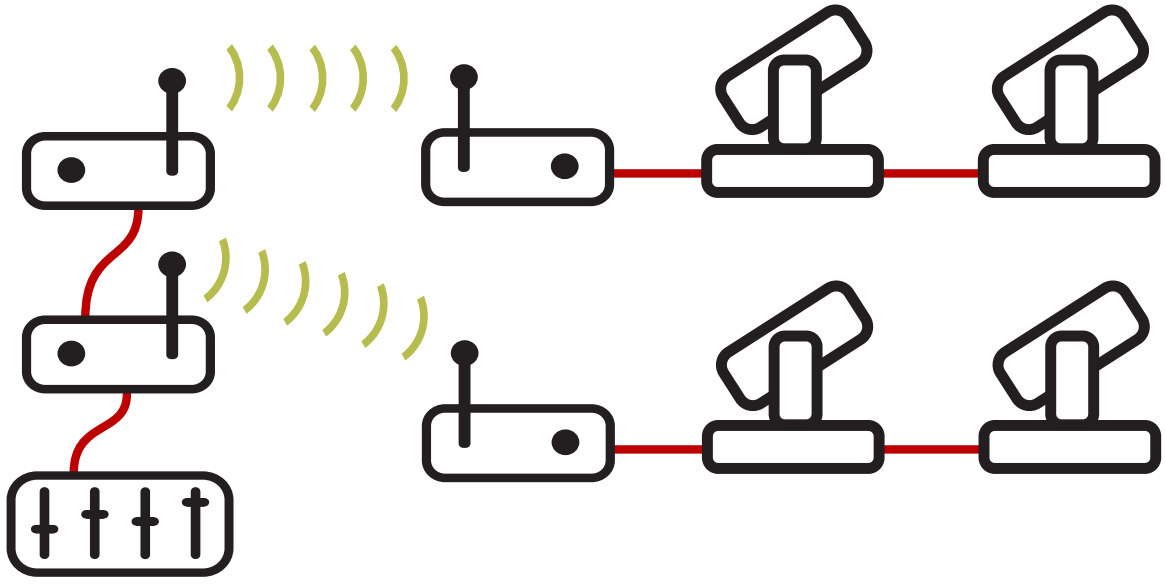


Figure 3: Multipoint-to-multipoint setup

Cognitive coexistence

Cognitive Coexistence is LumenRadio's patented technology for real-time adaptive frequency hopping. It's the foundation of our CRMX® technology and the main reason why we are perceived as the most reliable and resilient wireless DMX system on the market.

CRMX systems automatically scan and adapt to the RF environment 1500 times per second. If disturbances are detected, the system will move to frequencies that are currently not disturbed. This is how the cable-like reliability can be achieved, trusted by users in the most demanding sets.

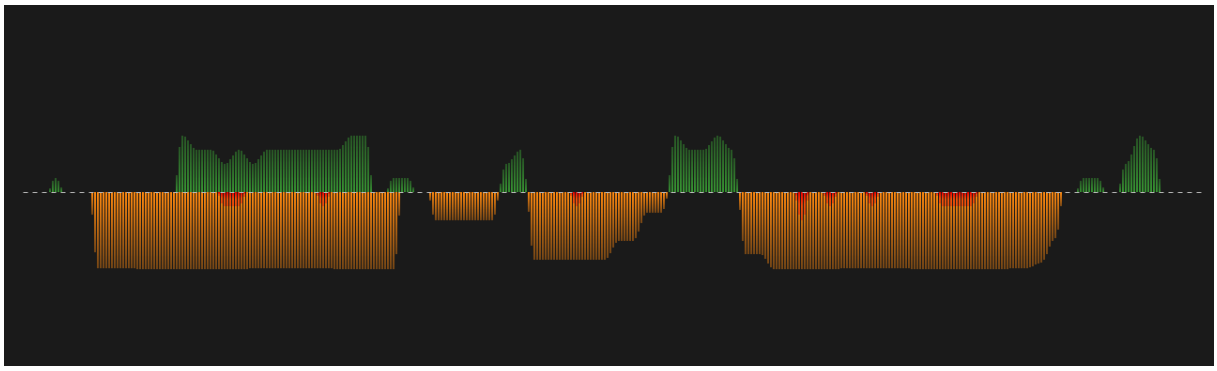


Figure 4: Cognitive coexistence

Introducing CRMX²

Stardust introduces the usage of CRMX² that allows for transport of more universes in the same amount of frequency space.

It packs more data into the same radio link, hence your receivers needs to be updated to support this. In the next section you can see details on what receivers that can be updated and which that can not be updated to support CRMX².

Compatibility

There has been two major wireless DMX systems on the market for a while - CRMX® and W-DMX™. They have historically not been fully compatible due to different technologies being used. But CRMX receivers have been able to receive the W-DMX G3 protocol. However, your new CRMX Stardust multi-universe transmitter can be operated in different modes;

1. **CRMX²** - transmit 8 universes of CRMX data
2. **CRMX Classic** - transmit 4 universes of CRMX data in compatibility mode.

3. **W-DMX G3** - transmit 4 universes of W-DMX G3 protocol.
4. **W-DMX G4S** - transmit 4 universes of W-DMX G4S protocol.

Stardust can transmit up to 8 universes of wireless DMX data to CRMX receivers. This requires receivers to run the latest firmware that has support for CRMX^2. Most receivers that are built-in in fixtures manufactured later than circa 2015 can be updated[1]. For receivers that are not upgraded, *CRMX Classic* mode needs to be used. It is possible to run Stardust in mixed modes of CRMX Classic and CRMX^2. In that case you will be able to transmit in total either 5, 6 or 7 universes depending on what mix you configure.

For W-DMX receivers, please use the W-DMX G3 mode for maximum compatibility. *Note:* This mode can also be used with CRMX receivers, but security and DMX fidelity is not as good as when running CRMX mode.

Mode	CRMX receivers	Older CRMX receivers	W-DMX receivers
CRMX^2	Yes	No	No
CRMX Classic	Yes	Yes	No
W-DMX G3	Yes	Yes	Yes
W-DMX G4S	Yes	No	Yes

Linking key

What is Linking Key

The Linking Key is a user-defined 8 digit key code. It can be used as a password to to the link credentials of a CRMX link. It can be used to tell two (or more) different transmitters to set up identical links. This is what we call *cloned transmitters*.

It can also be used to link a receiver to a transmitter that has an active link using the same linking key. This allows for easy addition of a receiver to a network where the transmitter might be inaccessible for instance, without the need to initiate a linking process from the transmitter.

[1] Fixtures using CRMXchip, TiMo RX, TiMo FX or TimoTwo FX can all be upgraded. Contact your fixture's manufacturer for further information. CRMX Nova, CRMX Outdoor and CRMX Slim can not be upgraded.

Cloning transmitters

By cloning transmitters, by entering the same Linking Key into both transmitters, you can place them at separate physical locations and move receives between the locations without the need to relink.

Note: It is important that the transmitters are separated, otherwise receivers may end up creating a link with any of the transmitters, which may lead to undefined behaviour.

Linking key for transmitters can be used in any mode, not limited to CRMX^2.

Linking an RX by Linking Key

In receivers that supports it, it is possible to enter the linking key of the transmitter to join that network without the need for performing a linking procedure from the transmitter.

Enter the same Linking Key into the receiver as you have entered into the transmitter and the receiver will automatically link to the transmitter when it is within range.

Linking receivers by Linking key can be used both in CRMX Classic and CRMX^2, but it requires the manufacturer of the device to have enabled this in their fixture. Current LumenRadio products that supports this is; Aurora (through app or UI), Luna (through app) and Moonlite (through app).

Your Stardust device

Overview

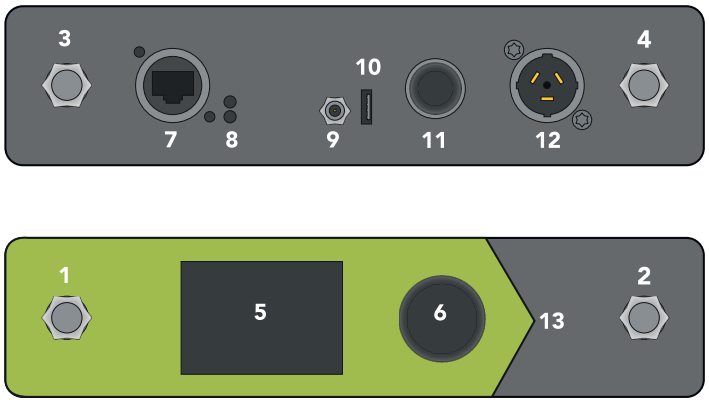


Figure 5: Stardust back and front

1. Antenna for *Output A* and *Output B*
2. Antenna for *Output C* and *Output D*
3. Antenna for *Output E* and *Output F*
4. Antenna for *Output G* and *Output H*
5. IPS TFT display for menu system
6. Control knob
7. Ethernet port (EtherCON) with PoE+ (802.3at Type 2) (Software locked to 100Mbps)
8. Ethernet Link/Data LEDs
9. DC inlet (10-18V DC) (5.5x2.5 mm)
10. USB port for firmware upgrades
11. WiFi antenna
12. AC inlet (90-240 VAC) (PowerCON TRUE1)
13. Decorative lights

Power options

Stardust has three different power options. It is possible to connect multiple power sources at the same time without damaging the device, this can for instance be used to have redundant power sources.

AC inlet

Stardust can operate from 90-240VAC (10%) through the PowerCON TRUE1 inlet.

DC inlet

The DC inlet is a 5.5x2.5 mm lockable jack. Suitable male connectors are thread lockable 5.5x2.5x7.5mm plugs. Acceptable voltages are 10-18VDC (10%).

Power-over-Ethernet

Stardust can be operated from a PoE+ (30W) power source. While it might be possible to power the unit from lower power classes, it is not recommended as it may be unreliable.

Mounting

Your Stardust is designed to be able to be mounted in a number of different ways;

1. Truss mounted - using a clamp with either M10 or 3/8” thread.
2. Rack mounted - using the rack mounting kit accessory.
3. Tripod mounted - using a M10 or 3/8” spigot or the yoke accessory.
4. Wall mounted - using the wall mount kit accessory.

M10 and 3/8” holes

On either side of your Stardust unit you’ll find holes for M10 (1.5 mm pitch) and 3/8” (UNC). These can be used with any standard truss mounting clamps or spigots, for instance a standard TV spigot. Do not use screws that can go deeper than 27 mm.

Safety wire

There are holes on the device where a safety wire shall be fasted if mounted more than 2 meters (6 feet) above ground.

Rack mounting

You can use the rack mounting kit (sold separately) to mount a Stardust in a standard 19 inch rack.

The rack mounting kit comes with convenient antenna patch cables to bring the rear antennas to the front of the rack.

To mount the rack brackets, loosen four (4) of the M4 screws on each side of the unit, place the rack bracket, and fasten it in place using the M4 screws. Tighten firmly.

Wall mounting

Stardust can be mounted to a wall using the wall mounting kit (sold separately). Loosen the lower two M4 screws on each side of the unit, place the brackets and fasten them using the M4 screws. Tighten firmly.

Settings and operation

Firmware upgrades

You can expect firmware updates to be released on a regular basis for your new Stardust unit. Even though we take pride in quality, we probably have overlooked something. Also, there will be many more features added to the firmware in the new weeks and months.

How to update

1. Go to https://lumenradio.com/products/stardust/ to download the latest firmware release.
2. Unzip the release and copy the *.swu* file to the root directory of a FAT formatted USB stick.
3. Plug the USB stick into the USB port in the back of the Stardust unit.
4. Choose *Update* in the menu on the front panel. (You'll find it under the *Settings* menu.)
5. Stardust will inform you about the process and reboot automatically when done.

If Stardust does not detect the update file on your USB stick, first try again. If it still does not detect it, make sure your USB stick is freshly formatted in FAT32 or exFAT file systems.

Front panel UI

Status indication

The front panel UI can be configured to show a status screen, called the *Home screen*. The home screen is shown automatically when the menu has been left idle for two minutes. It is also possible to come back to the home screen by holding the knob pressed.

When enabled, there are three home screens to choose from;

1. Simple
2. Detailed
3. Hybrid

On all types the following symbols are used for indicating the data status on each output. The color of the symbol represent that output's universe color.

Symbol	Description
	Active output, no data received on network

Symbol	Description
A	Active output, receiving data from at least one source
A	Output is disabled

Simple

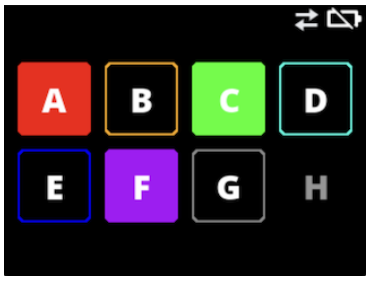


Figure 6: Simple status screen

The simple screen shows one the data status of all outputs.

Detailed



Figure 7: Detailed status screen

The detailed status screen shows all outputs' data status as well as the universe name and protocol settings on one page.

Hybrid

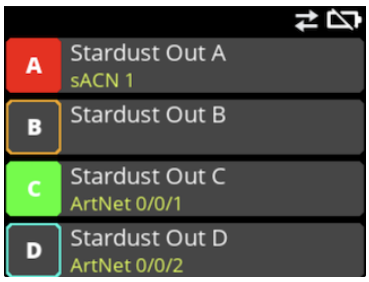


Figure 8: Hybrid status screen

The hybrid status screen shows all outputs' data status as well as the universe name and protocol settings, but split into two pages for better visibility.

Main menu

The operation of Stardust can be performed from the front panel menu system. Linking, mapping of universes, IP settings, etc is all done from here.



Figure 9: Stardust main menu

Output Status

When no status screen is selected, the current status of all eight outputs is shown in the upper left corner of the screen in the main menu;

- Dash (-) shows that the output is not configured.
- Small letter (a-h) indicates that the output is configured, but not receiving data from Ethernet.
- Capital letter (A-H) indicates that the output receives data from Ethernet.

Status icons

In the top of the status screen (or menu screen if no status screen is selected) you will find status icons.

Icon	Description
	Battery charging
	Battery charged
	Current battery level
	WiFi access point enabled
	WiFi client enabled
	RDM enabled

Error codes

In case of unexpected failures the front panel may display a red screen and an error code. These are typically related to internal communication errors within the unit.

Error code	Description
-1	Front panel communcation error at boot time.
-2	Front panel communcation error during runtime.
-3	Internal radio application communcation error.
-4	Internal radio-to-radio communcation error.

Web UI

Most settings and functions can also be operated from the web UI embedded in the device. To access the web UI, take a browser and go to *http://a.b.c.d* where *a.b.c.d* is the IP address of your device.

If you only have one Stardust connected to your network, you can navigate to *http://stardust.local* instead.

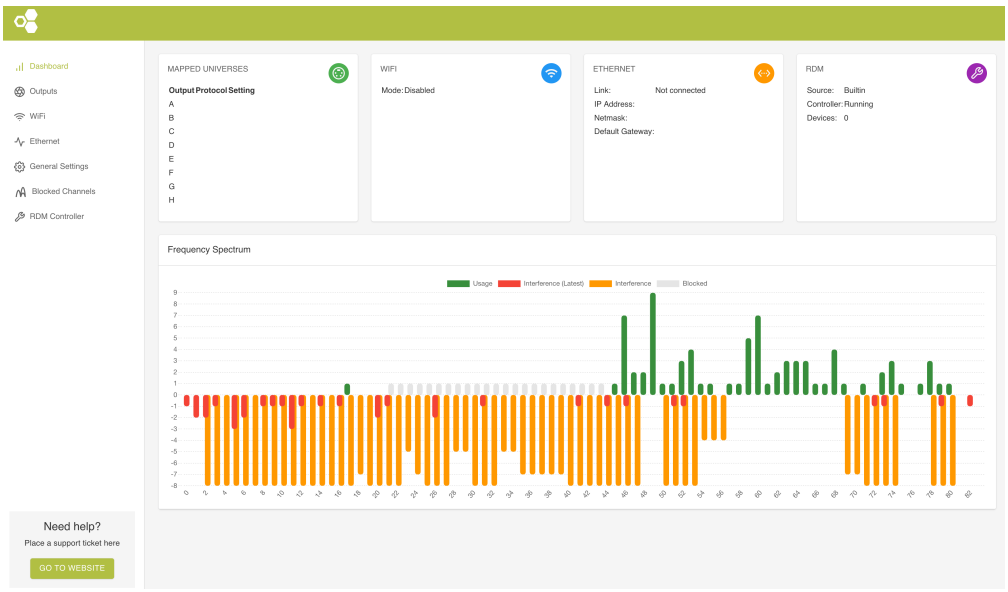


Figure 10: Stardust Web UI

Linking

Linking and unlinking receivers is done from the *Linking* menu or from the web UI. Each output can be linked/unlinked individually.

Linking

When linking, all available (currently unlinked) receivers within range will be linked to the output.

Unlinking

When unlinking, all receivers that are linked to this output - and within range - will be unlinked. The receivers will then be available to link to other transmitters.

Universe mapping

In the Universe menu, you can connect each Stardust output to an Ethernet universe, or alternatively disconnect it.

When Stardust is running in a 4 universe mode, every second output will be disabled, hence it's not possible to connect them to any universe at that point.

Streaming ACN

Streaming ACN (ANSI E1.31), or simply sACN, is a standard for transferring DMX-512 universes over IP networks. The standard allows for up to 64,000 universes on the same IP network. Streaming ACN supports, and most commonly uses, multicast allowing the protocol to work even if IP settings are not set up properly. To configure Stardust to use sACN, the following parameter needs to be set:

- Universe (1-64000)

When using sACN with multicast, it is recommended to use network switches that has IGMP support for scalability reasons if using many universes. It allows for the network switches to offload the devices by taking care of the network traffic to only send the data that each device wants.

ArtNet

ArtNet, developed by Artistic Licence Engineering Ltd, supports up to 32,768 universes being sent over an IP network. Stardust supports ArtNet 4. The ArtNet universe is selected by setting the following parameters:

- Net (0-127)
- SubNet (0-15)
- Universe (0-15)

ArtNet uses unicast and broadcast, this means that IP settings of the unit needs to be properly set up for the protocol to work.

Data merging

Stardust tracks up to 4 data sources per output. Data is merged based on source priority, sourced with equal priority is merged according to a HTP (highest takes precedence) policy where the highest value for each DMX channel is used.

If using ArtNet, no priority is used. Source IP address is used as the source identifier when using ArtNet. This means that you can not have multiple controllers running on the same networked device.

When sACN is used, the source's ACN CID (Component Identifier) is used to distinguish between different sources.

Ethernet

Stardust has a built-in Ethernet interface. It can be configured for static IP, or to obtain IP automatically from a DHCP server.

Static IP

When configuring for static IP, you need to configure the following:

- **IP**
- **Netmask**
- **Gateway** *(if no gateway exist, leave blank or set it to 0.0.0.0)*

DHCP

By enabling DHCP your Stardust will obtain IP settings automatically if there is DHCP server available on the network.

WiFi

The built-in WiFi can operate in either Access Point mode, or Client mode.

Access Point (AP mode)

In access point mode Stardust will create a WiFi network that your phone, tablet, etc could connect to. This is handy for instance for iPad based lighting control apps, that can send data to Stardust directly over WiFi.

In AP mode you need to do the following settings:

- **SSID** *(the name of the network)*
- **Password**
- **Channel** *(the WiFi channel number to use)*
- **IP settings**
- **DHCP** *(if the DHCP server shall be enabled or not)*

Protect your Stardust unit from unauthorized access when using WiFi in Access Point mode, we strongly recommend using a strong and unique password.

A good WiFi password should:

- Be at least 16 characters long
- Include a mix of letters (upper and lower case), numbers, and symbols
- Avoid easily guessed patterns like 12345678, password, or your company name

Example of a strong password: Stage#42-Lights!Secure

Choosing a strong password helps ensure the integrity of your wireless connection and prevents brute-force access attempts.

Client mode

In client mode, the Stardust tries to connect to the specified WiFi network.

- **SSID** *(the name of the network to join)*
- **Password**
- **IP settings** *(static or DHCP)*

Channel blocking

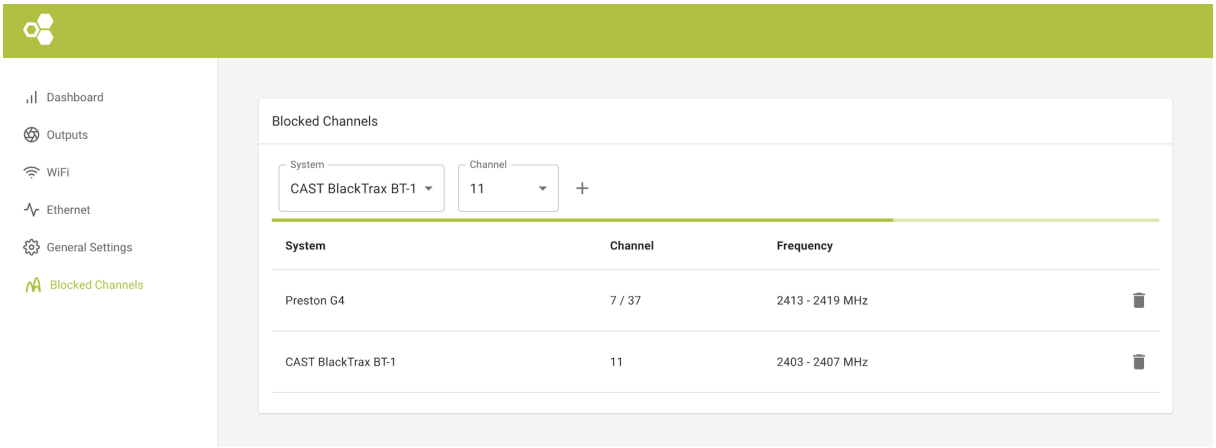


Figure 11: Blocked Channels

Stardust supports to block the wireless DMX radios from operating at certain channels used by other systems.

This is done by selecting the appropriate system in the *Blocked Channels* tab, select the channel number as numbered by that system and click the **+** sign.

To remove a blocked channel from the block list, simply press the trash can icon in the blocked channels list.

It is not possible to block more than half of the 2.4 GHz band, this is to unsure reliable operation of Stardust. The green bar above the blocked channels list indicates how much more you can block.

RDM

Stardust has a built-in RDM controller directly into the unit's web interface and can be accessed from any device such as PC, tablet or smart phone with a web browser. Stardust also allows the user to use any controllers supporting RDM over ArtNet to discover, configure and monitor downstream RDM devices.

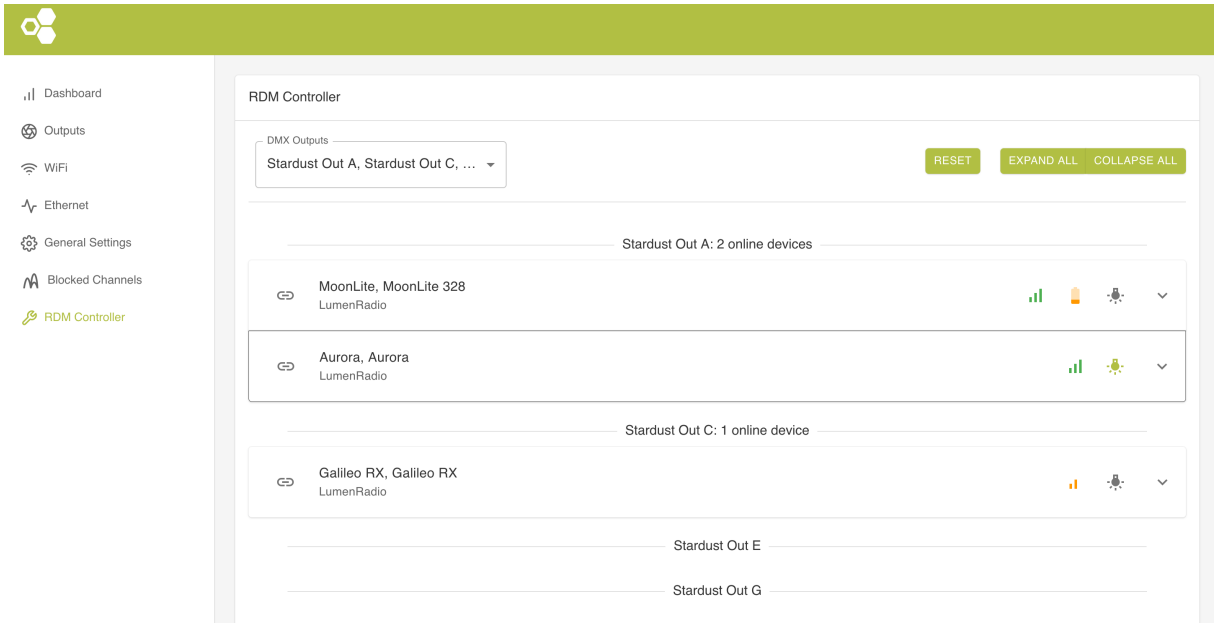


Figure 12: RDM controller

In the settings you can configure RDM to be in one of three different modes;

- Disabled: RDM is off, no RDM traffic is generated or being let pass through.
- Builtin: The Stardust's internal RDM controller is active and can be accessed from the web UI.
- ArtNet: RDM is being available from third-party controllers using RDM over ArtNet.

Basic device information

RDM devices will show up listed with the manufacturer name, the product name, and the user-defined device label. The UI will also contain information about the device's software version, etc.

Identify device

Press the small bulb icon on a device in the UI to identify this device. The behaviour of the identify procedure is defined by each manufacturer, but the common practice is to strike the lamp, blink UI screen, or something similar. Please see the user manual for your specific device for more information.

Basic device configuration

It is possible to set DMX settings such as DMX start address, DMX personality, pan & tilt invert, etc. It is also possible to set device label to give each device a unique meaningful name.

Dimmer settings

Via the controller's UI it is possible to set dimmer specific settings, such as dimmer curves, etc. What settings that are possible to do is depending on what your specific device declares support for.

Monitor battery levels

Any RDM device with a battery sensor will be shown with an icon showing the battery level directly in the RDM controller UI. If battery level is below the device's specified normal level, the icon will turn red to indicate low battery level.

Monitor receiver signal quality

With the use of RDM it is possible to monitor the downstream receivers' signal quality if they support RDM. Each receiver presents a sensor with the current signal quality level.

Battery backup

Stardust comes with a built-in battery backup for uninterrupted operation. When fully charged, the unit can operate for up to 20 minutes.

The device will automatically shut down when it detects the battery is reaching a level where normal operation is no longer assured.

Battery backup can be enabled or disabled.

Note: Battery backup is not available when the unit is configured for operation at 280mW output power.

Turning the device off

When external power is plugged in, the unit will always be on. When operating from the built-in battery, the unit can be turned off by selecting the *Power off* option in the main menu.

Charging the battery

The battery will automatically charge whenever external power is connected to the device.

If the battery is completely depleted it takes approx two hours for it to fully charge.

Factory reset

By performing a factory reset, all settings are reverted back to the factory default settings. This is performed by selecting “Factory reset” in the menu.

Factory default state

The following tables outlines all network-facing interfaces and services that are exposed when the device is reset to its factory default state.

Exposed Network Interfaces

In factory default state, following network interfaces are exposed

Interface	Default IP Address	Default State
Ethernet	DHCP	Enabled
Wi-Fi Access Point	10.50.0.1	Disabled
Wi-Fi Client	DHCP	Disabled

Exposed Network Services

In factory default state, following services are exposed

Service	Port	Protocol	Default State
Web UI	80 / 8080	HTTP	Enabled
WebSocket	80	WS over HTTP	Enabled
Art-Net	6454	UDP	Disabled
sACN	5568	UDP	Disabled

Compliance information

CE

This product complies with the Essential Requirements of RED (Radio Equipment Directive) of the European Union (2014/53/EU). This product meets the requirements of relevant conformance standards.

A detailed Declaration of Conformity is available upon request from the manufacturer.

UKCA

This product complies with the relevant statutory requirements in the United Kingdom. This product meets the requirements of relevant conformance standards.

A detailed Declaration of Conformity is available for market surveillance upon request from the manufacturer.

FCC

FCC IDENTIFIERS: XRSTIMOMWAN301, 2ABCB-RPIRM0

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Declaration of Conformity

We LumenRadio AB, Svangatan 2B, 416 68 Gothenburg, Sweden, declare under our sole responsibility that this product complies with Part 15 of FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Warnings & Instructions

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following methods:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Modifications made to the product, unless expressly approved by LumenRadio AB, could void the user's right to operate the equipment.

Industry Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le resent appareil numerique nemet pas de bruits radiolectriques depassant les limites applicables aux appareils numeriques de la classe B prescrites dans le Reglement sur le broullage radioelectrique edicte par le ministere des Communications du Canada.

Specifications

Spec	Details
Power supply AC	100-240 VAC, 50/60 Hz, 1A max
Power supply DC	10-18 VDC, 1A max
IP rating	IP20
Operating temperatue	-20 to +55 °C
Storage temperature	-30 to +65 °C
Humidity	0-90% non-condensing
Antenna connectors	RP-TNC
Frequency range (CRMX)	2402-2480 MHz
Frequency range (WiFi)	5180-5240 MHz
	5260-5320 MHz
	5500-5700 MHz
	5745-5825 MHz (only in North America)
Maximum RF power (CRMX)	100mW (280mW in North America only)
Maximum RF power (WiFi)	50mW

Accessories

All accessories can be ordered from your local CRMX distributor.

Order code	Description
800-2204	Stardust Rack Mounting Kit
800-2206	TNG Wall Mounting Kit
800-2208	TNG V-mount Battery mount