

# manual and datasheet tiny sparrow RX

#### Overview

The tiny sparrow RX is a DMX / RDM receiver based on Lumenradio's award winning CRMX technology.

The tiny sparrow RX is very small, insanely lightweight - 42gram - and quite reliable. The small size makes it perfect to fit in every corner, small practicals and fixtures or even in the actors dress to control a DMX Dimmer for wearable LEDs.

Four small LEDs give you control and feedback of the unit, as well a link switch which let's you link and unlink the unit from a transmitter. But nonetheless the tiny sparrow RX runs with the professional Lumenradio CRMX technology with features like:

- Supports DMX512-A (ANSI E1.11) and RDM (ANSI E1.20)
- Cognitive coexistence dynamically avoids occupied 2.4GHz frequencies
- DMX fidelity and frame integrity
- DMX frame rate and frame size auto sensing
- Fixed 5 ms end-to-end latency
- Automatic legacy (W-DMX G3, G4 and G4S) compatibility mode





## Dimensions

140mm x 40mm x 20mm

# **General Functionalty**

- PowerIN: 6-36VDC range or USB (5VDC regulated USB power banks are limited supported<sup>1</sup>)
- power consumption: ~25mA (peak)
- temperature working range: -20°C +40°C
- IP rating: IP20
- antenna connector: RP-SMA female
- antenna: RP-SMA male, 2.5dBi
- housing: ABS
- connector: 2pin male Phoenix PTSM from left to right:
  - Pin 1: VDC +
  - Pin 2: VDC -
- DMX
  - DMX OUT
  - supports DMX512-A (ANSI E1.11) and RDM (ANSI E1.20)
  - 3pin male Phoenix PTSM from left to right:
    - Pin 1: Ground
    - Pin 2: DMX Data -
    - Pin 3: DMX Data +

### **Status LED**

The Status LED shows four different working conditions:

Receiver is not linked to a transmitter:

Receiver is linked, but not connected to a transmitter - no active radio signal:

Receiver is linked and connected to a transmitter. No active DMX data:

Receiver is linked and connected to a transmitter. Receiving DMX data:

## Linking

- 1. Ensure the antenna is connected. The unit is powered and it's not linked already status LED is off
- 2. On the transmitter, a short press on the link-button.
- 3. The transmitter will search for any unlinked receiver. The receivers status LED will flash for 10 seconds, normal operation will resume.
- 4. The status LED will change to a steady on-state on successfully linked receivers.

## UnLinking

- 1. Unlink one receiver: press and hold the link button for more than 3 seconds to unlink from a transmitter. The status LED will go off.
- 2. Unlink all receivers: On the transmitter, press and hold the link button for more than 3 seconds to unlink all linked receivers.

<sup>&</sup>lt;sup>1</sup> The tiny sparrow series got a very low power consumption, which most USB power banks do not support. Please order the power bank 2.000mAh (order no: 3001)

## Troubleshooting

- "Signal" LED shows red. Radio signal quality <10% or no signal at all.
  - Solution -> Try to get a better radio signal by avoiding obstacles, like walls. The best radio signal you'll get by line of sight to the transmitter. Tested distance on field: around 400m.
- No DMX data on DMX fixture:
  - Check the DMX LED (green receiving DMX data), if the transmitter sending correct DMX data, the radio signal strength, or the DMX cable.
- USB power bank on POWER IN shuts down after a few seconds:
  - the tiny sparrow series does not support a USB power bank in generell. The tiny sparrow series got an very low power consumption, which most USB power banks doesn't support.
- Status LED is flashing continuously slow, regardless any function:
  please contact your local dealer for help.

Need more help? See our support files (a) <u>www.radicalwireless.com</u> Note: subject to change without further notice.

# **Approvals & Certificates**

CE - Certification of Compliances:

- TIMO RX RDM and TIMO FX RDM comply with the European Union (2014/53/EU), ETSI EN 300 328 V1.8.1 & V1.9.1
- tiny sparrow TX, tiny sparrow RX corresponds to CE & RoHS (2011/65/EU)
- EMC/EMV tested according EN 55022 Class B RE
- FCC part 15 modular approval
- 15.247&68 Class B



# **Order numbers:**

FCC:

tiny sparrow TX: tiny sparrow RX: tiny sparrow starter set:	201 202 01
DMX cable: XLR5 female-PTSM 3pol: XLR3 female-PTSM 3pol:	302025 302023
Power cable: USB-PTSM 2pol: DC-Stecker-PTSM 2pol: XLR4-PTSM 2pol: D-Tap-PTSM 2pol: OpenEnd-PTSM 2pol:	30200USB 30200DC 30200XLR4 30200DTAP 302001
Accessories: USB Power Bank 2.000mAh: 3001 Neopren bag: 3002 Antenna, 50mm, 2.5dBi: 3003	

## Contact

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