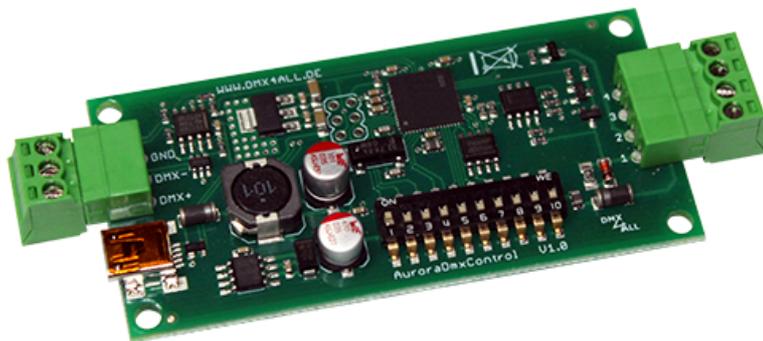


AuroraDMX Control

User Manual





For your own safety, please read this user manual and warnings carefully before installation.

Description

The **AuroraDMX Control** is designed especially for controlling Nanoleaf Aurora Panel via DMX. By controlling via DMX up to 128 panels can be controlled individually. It is recommended to operate up to 32 panels on one AuroraDMX Control.

Automatic Addressing of the panels

The AuroraDMX Control addresses the connected panels automatically. No additional controller is required.

Up to 128 Panels

Up to 128 panels can be run by one AuroraDMX Control.

Easy Configuration

The starting address is to adjust with the 9 switches at the AuroraDMX Control.

TPM2-Protocol

The AuroraDMX Control supports the TPM2-Protocol via the USB interface with a virtual COM port (VCP).

RDM support

The DMX-Relais 2 INRUSH allows the configuration via RDM or DMX.

Firmware-Update-Function

To use future functions the AuroraDMX Control offers a Firmware-Update-Function.

Suitable aluminium housing

An aluminium housing for mounting is available as accessory.

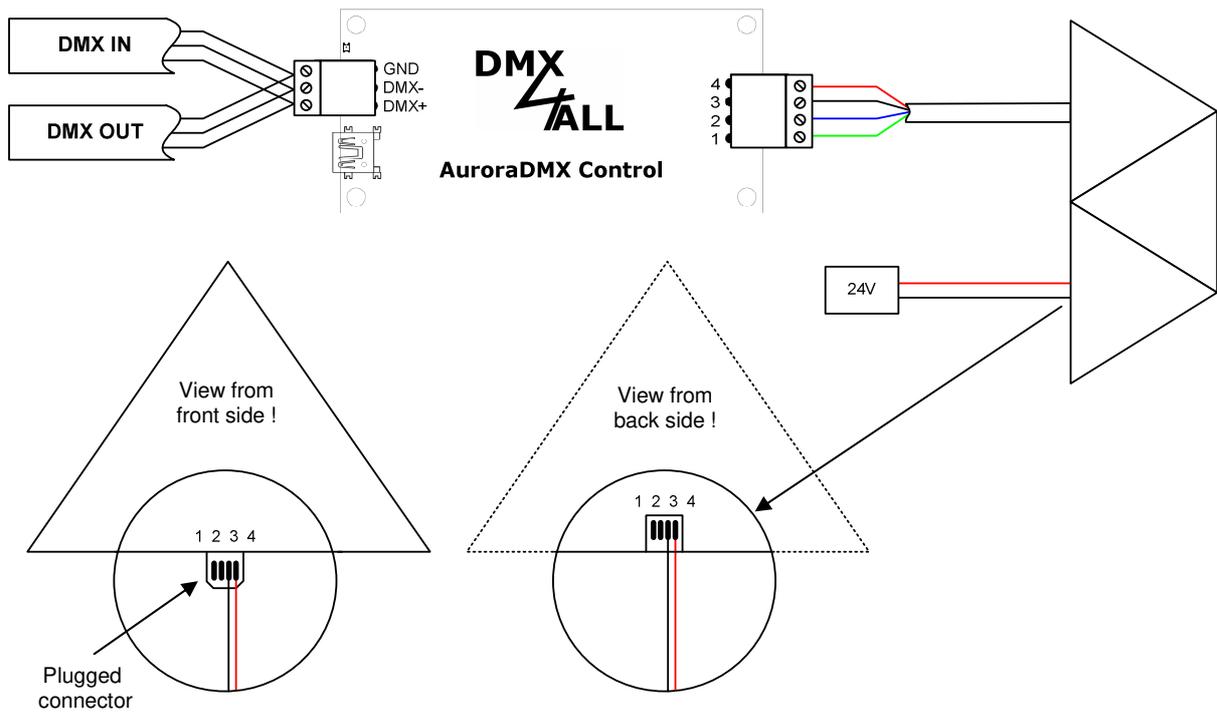
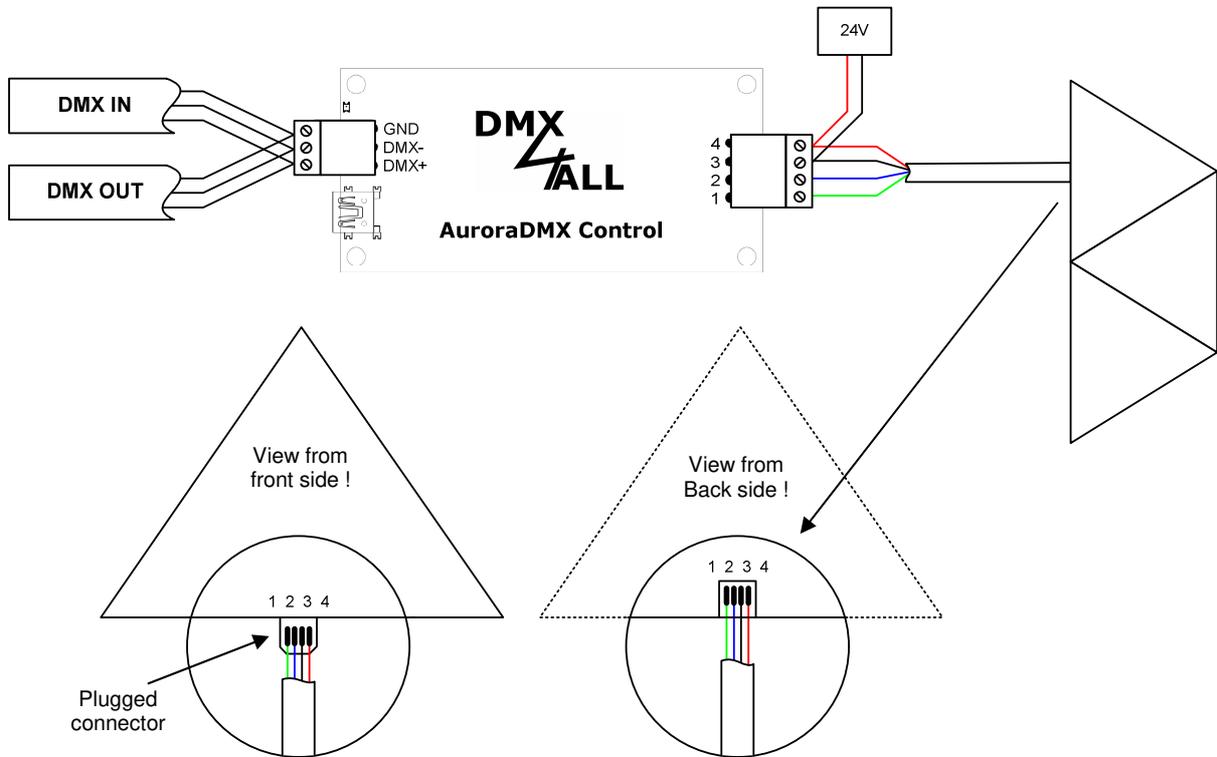
Data sheet

Power supply:	24V DC / 100mA or via USB-Connection
Protocol:	DMX512 RDM TPM2 via VCP
DMX channels:	up to 512 DMX-Channels
Output:	Digital control signal
Output protocol:	Compatible with Nanoleaf Aurora Panel
Color sequence:	RGBW
Max. Panel number:	128 (up to 32 recommended)
Dimensions:	80mm x 39mm (without overhanging connections)

Delivery

- 1x AuroraDMX Control
- 1x Connection clamp 3pin
- 1x Connection clamp 4pin
- 1x Connection cable for Panel ca. 1m
- 1x Quick guide german and english

Connection



Installation with many Panels

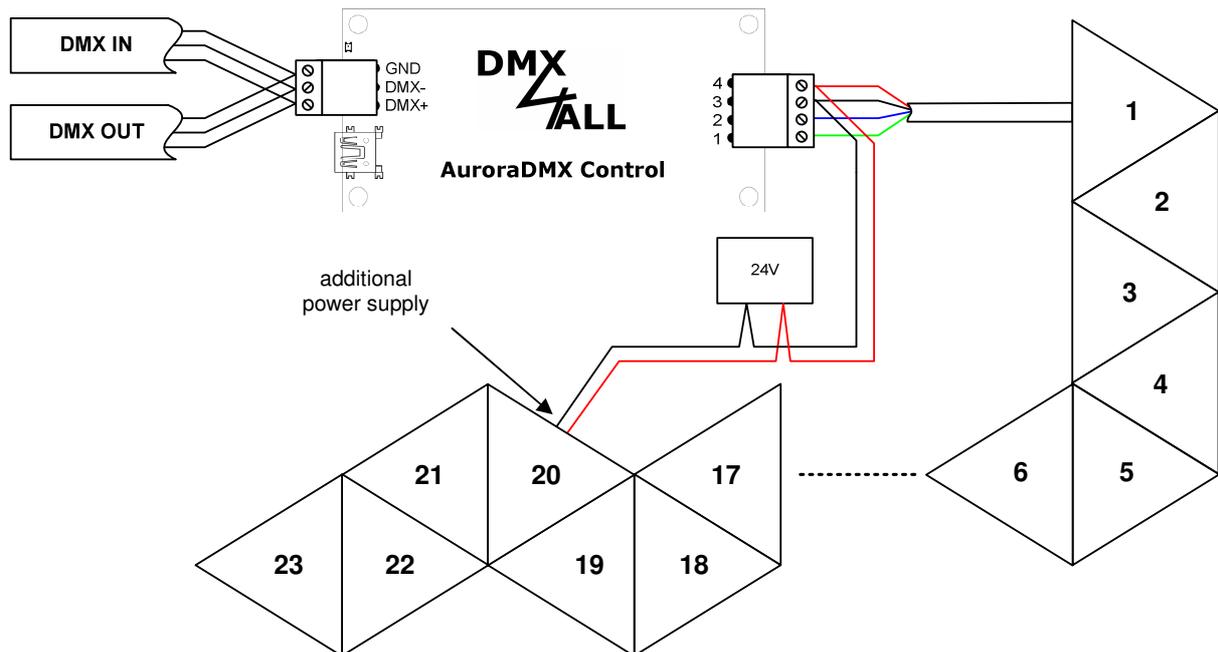
For a larger installation it is necessary to use a power supply with enough power.

According to the manufacturer the power consumption is 2W for each panel.

Systems with 30 panels need a power supply at least with 60W.

The power supply is to implement on a regular basis with additional power supply lines. So, a steady brightness of the panels is given and the panel-connections are not overloaded.

 We recommend to reconnect the power supply after 20 panels. The total number of 32 panels should not be exceeded.

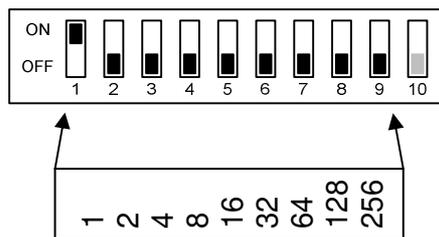


DMX-Addressing

The DMX-Starting address is adjustable via the DIP-Switches 1-9.

Switch 1 has the valency 2^0 (=1), switch 2 has the valency 2^1 (=2) and so on, finally switch 9 has the valency 2^8 (=256). The sum of the switches showing ON, represents the start address.

Switch 10 is reserved for demo programs and must show OFF during the DMX-Operation.



LED-Display-Codes

The integrated LED is a multifunctional display.

In the normal operation mode the LED lights non-stop.

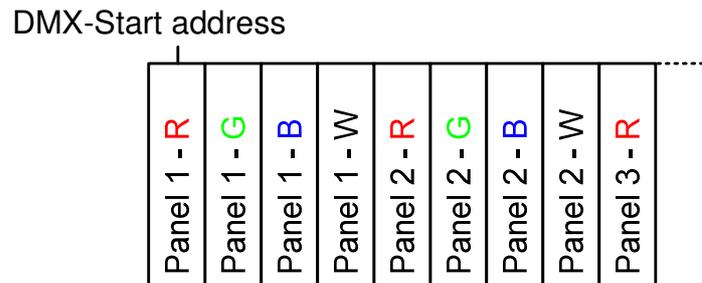
Furthermore the LED signals the operation status. In this case, the LED lights up in short pitches and then turn into off mode. The number of flashing signals is equal to the number of the error status:

Error-Status	Error	Description
1	No DMX-Signal	No DMX signal is detected
2	Addressing error	Please check, if a valid DMX-Start address is adjusted via the DIP-Switches
3	DMX-Signal error	An invalid DMX-Input signal is detected. Swap the signal lines on pin 2 and pin 3 or use twisted connection cable.

Ansteuerung per DMX

The **AuroraDMX Control** controls each RGB-Panel with 4 DMX-Channels. One DMX-Channel is used for red, one for green, one for blue and one for white.

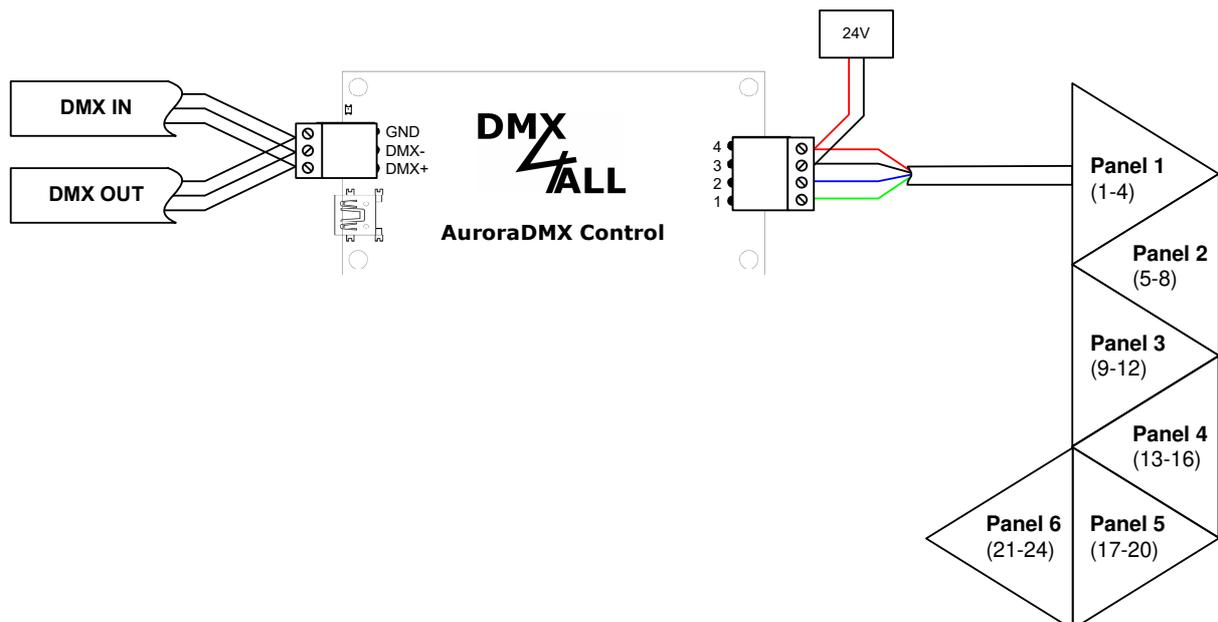
Starting at the start address the DMX-Channels are assigned automatically:



Automatic Addressing of the panels

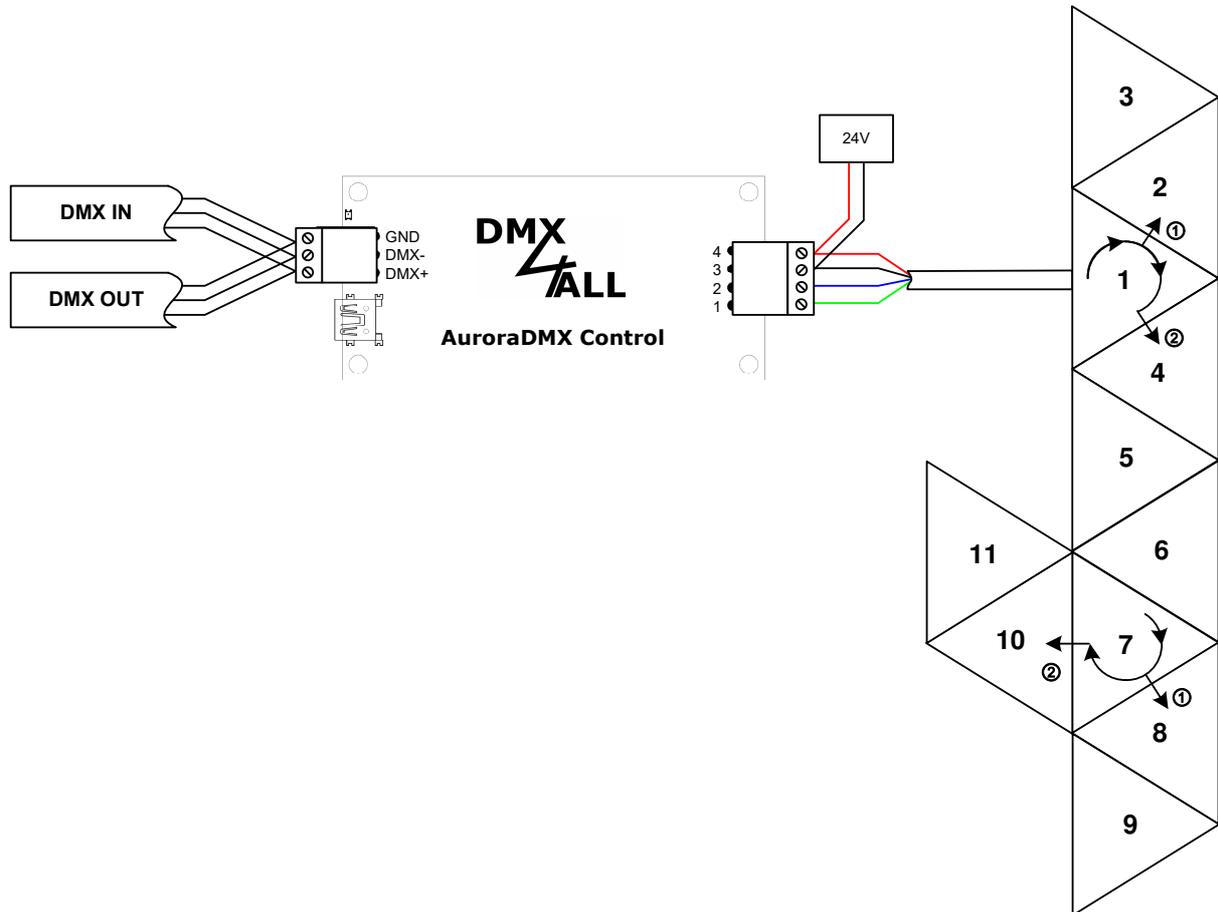
The panels are addressed automatically by the AuroraDMX Control.

The first panel is that, which is directly connected to the AuroraDMX Control. The others are addressed one after the other.



(...) = Used DMX-Address by start address=1

If all 3 sides are used at one panel so the addressing is according to the clockwise direction and all panels addressed in one path.



Extended Settings

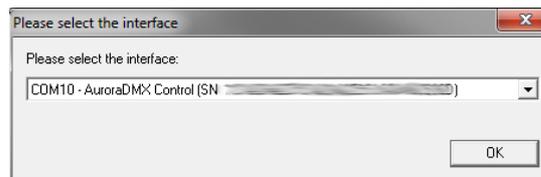


For the extended settings an USB-Connection to a PC with the program DMX-Configurator is needed.

The extended settings allow using further functions of the AuroraDMX Control.

Please proceed as follows to get the extended settings:

- Connect the AuroraDMX Control per USB to the PC
 - ⇒ An USB-Cable with MiniB-Male is needed (not included in delivery)
 - ⇒ Install USB-Driver, if it is not installed
- Start the program DMX-Configurator
 - ⇒ That is available as download on www.dmx4all.de
- Generate a connection between AuroraDMX Control within the DMX-Configurator



- Call up *Settings* → *Hardware Settings*
- Here the extended settings can be adjusted

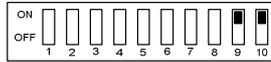


- By clicking OK the settings are transferred and stored to the AuroraDMX Control

Demo programs

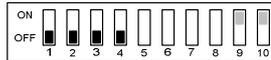
The demo programs available in the AuroraDMX Control can be called up via the switches and without DMX.

Switch switch 9 and 10 on ON:

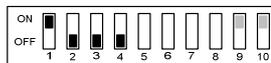


Switches 1 up to 4 the demo programs can be selected:

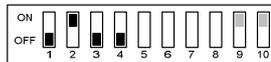
8-Color Mix



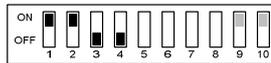
R-G-B



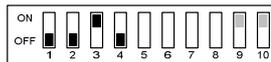
Stars RGB



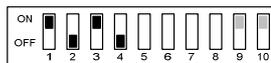
Stars single color



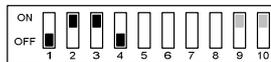
Wave 1



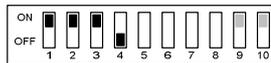
Wave 2



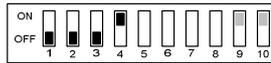
Snake



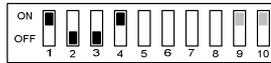
Blowing



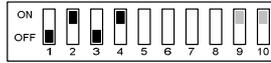
Running Point 1



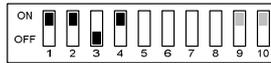
Running Point 2



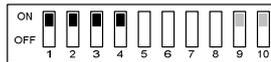
Blink



Color change

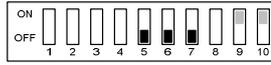


Rainbow

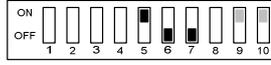


Switches 5, 6 and 7 the color can be selected:

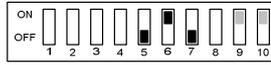
White



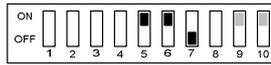
Red



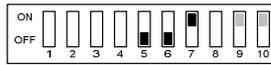
Green



Blue



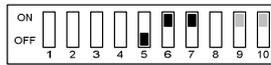
Yellow



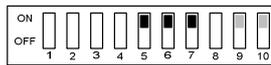
Pink



Cyan

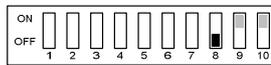


Black

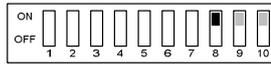


Switches 8 adjust the speed:

Fast



Slow



RDM (Firmware V1.1 or higher is needed)

RDM is the short form for **R**emote **D**evice **M**anagement.

As soon as the device is within the system, device-dependent settings can be occur remotely via RDM command due to the uniquely assigned UID. An direct access to the device is not necessary.



If the DMX start address is set via RDM, all address switches at the AuroraDMX Control must be set to OFF ! A DMX start address set by the address switches is always prior !

This device supports the following RDM commands:

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/PID
DISC_UNIQUE_BRANCH	✓			E1.20
DISC_MUTE	✓			E1.20
DISC_UN_MUTE	✓			E1.20
DEVICE_INFO			✓	E1.20
SUPPORTED_PARAMETERS			✓	E1.20
PARAMETER_DESCRIPTION			✓	E1.20
SOFTWARE_VERSION_LABEL			✓	E1.20
DMX_START_ADDRESS		✓	✓	E1.20
DEVICE_LABEL		✓	✓	E1.20
MANUFACTURER_LABEL			✓	E1.20
DEVICE_MODEL_DESCRIPTION			✓	E1.20
IDENTIFY_DEVICE		✓	✓	E1.20
FACTORY_DEFAULTS		✓	✓	E1.20
DMX_PERSONALITY		✓	✓	E1.20
DMX_PERSONALITY_DESCRIPTION			✓	E1.20
SERIAL_NUMBER ¹⁾			✓	PID: 0xD400

1) Manufacturer depending RDM control commands (MSC - Manufacturer Specific Type)

Manufacturer depending RDM control commands:

SERIAL_NUMBER

PID: 0xD400

Outputs a text description (ASCII-Text) of the device serial number.

GET Send: PDL=0
 Receive: PDL=21 (21 Byte ASCII-Text)

Controlling via TPM2-Protocol

With the AuroraDMX Control it is possible to use the TPM2 protocol via USB interface. For this the VCP driver must be installed which creates a virtual COM-Port.



The COM-Port-Number can be identified via the device manager.

Now, the COM port must be set within the software. The other parameters are 115000Baud, no parity, 1 stop bit (115000 8N1).

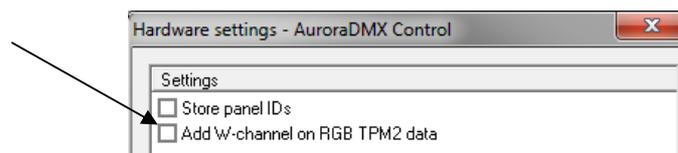
The AuroraDMX Control outputs the transmitted data to the connected Panels.

RGBW-Control

Each RGBW-Panel is used with 4 channels. This means that the first panel reserves channels 1-4, the second panel reserves channels 5-8 etc.

RGB-Control

The AuroraDMX Control offers the option to use RGB-Data for control via *Add W-Channel on RGB TPM2 data* .



If this option is activated, each panel is controlled with 3 channels. In this case, the white value will be always output with the value 0.

This means that the first panel receives channels 1-3, the second panel receives channels 4-6 etc..

TPM2 with Jinx!

If the AuroraDMX Control is used with Jinx! so the device setting is as shown as follows (here COM10 is used):

The screenshot shows the 'Add/Edit Device' dialog box with the following settings:

- Device Type: tpm2
- Addressing: IP Address (empty), Port (empty), Broadcast / Multicast (E1.31) (unchecked), Net (empty), Subnet (empty), Universe (empty), Send Artnet Sequence Numbers (unchecked)
- Data: Channels (48), Chan/Block (48), Blocks (1)
- Serial Port / USB Device: COM10, Baud (115200)
- Output Redirection: Redirect Output to File (unchecked), Select button
- Buttons: Cancel, OK

Factory Reset



Before running the Factory Reset, read all steps carefully.

To reset the **AuroraDMX Control** to delivery state, proceed as follows:

- Turn off device (Cut the power supply and USB !)
- Set DIP switch 1 up to 10 to ON
- Turn on the device
- The LED lights up 20x during ca. 3 seconds
 - ➔ While the LED lights up set DIP switch 10 to OFF
- Now, the Factory Reset is executed
 - ➔ The LED lights up with error code 4
- Turn off device (Cut the power supply and USB !)
- Now, the device can be used



If a Factory Reset is needed again, this procedure can be repeated at any time.

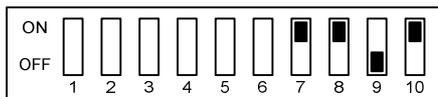
Firmware Update

The **AuroraDMX Control** has an Update-Function which allows transferring future Firmware-Versions.

Please proceed as follows:

- Turn off the AuroraDMX Control (Cut the power supply and USB !)

- Set switch 7-10 as shown:



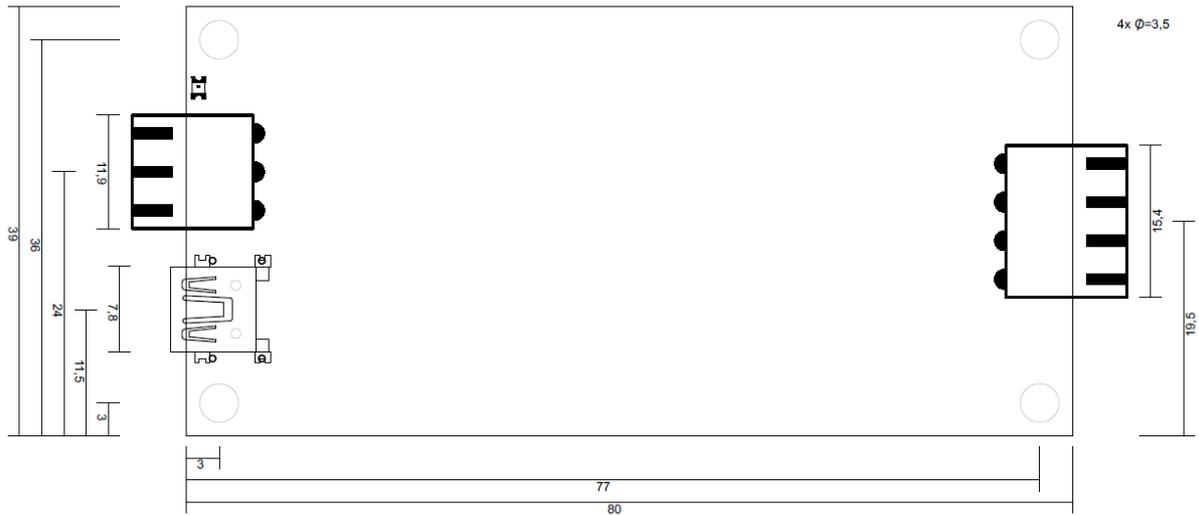
- Turn on the device
- Generate USB-Connection to PC
- Start update-Software **DMX4ALL USB-Updater**
- Select AuroraDMX Control from list
- Click *Firmware-Update*
- Select Firmware-File (.bin) and confirm
- Wait until the update has finished



No program is allowed to access the USB-Connection. Close the DMX-Configurator and USB-Updater before USB-Cable is connected to the AuroraDMX Control. Do not start the USB-Updater if the DMX AuroraDMX Control is in its update-mode.

If an error occurs during the update, you can start from beginning every time.

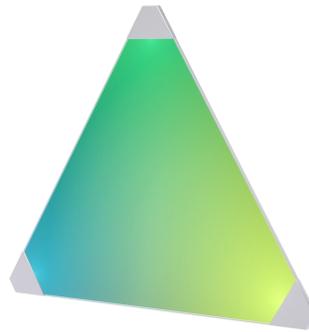
Dimensions



All details in mm

Accessory

Nanoleaf Aurora Panel



Power supply 24V / 2,5A



USB-Cable A-Male / MiniB-Male



CE-Conformity



This assembly is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not be excluded:

Failure risk:

The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk:

For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk:

The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk:

Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations. Information on this can be obtained from your local waste disposal company.



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Last changes: 17.06.2020

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