

Wireless ArtNet-DMX STAGE-PROFI 1.1

User Manual



ART
NET
ETHERNET

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DMX 4 ALL[®]

Description

The **Wireless ArtNet-DMX STAGE-PROFI 1.1** is a compact Art-Net (DMX via Ethernet) Interface which includes modern ARM[®]-Processor technology.

Furthermore the Wireless ArtNet-DMX STAGE-PROFI 1.1 offers a certified 2.4GHz 802.11 b/g/n Wi-Fi (FCC, CE, IC, and TELEC) for the direct integration in a WLAN.

Switchable DMX-Line

The DMX-Line is switchable according to usage. So Art-Net can be realized to DMX or DMX to Art-Net.

Adjustable DMX-Frame rate

Within the DMX-OUTPUT-MODE the frame rate is adjustable, so this interface is compatible to "slow" DMX-Devices.

Art-Net Merge-Function

Two Art-Net-Sources will be joined outputted via LTP (Latest) or http (Highest) to the DMX-Output.

Switched off LED-Display

The LED-Display at the Wireless ArtNet-DMX 1.1 are suppressible via ArtNet-Command (AcLedMute) or time-controlled.

This is helpful on stages to avoid disturbing "light points".

Fast launch with WPS

With the WPS-Function the registration to an Access-Point is possible at the touch of a button. Without an additional installation of encoding, the controlling can be integrate in existing networks and allows an easy possibility of usage without additional network activities.

Easy Configuration

For an easy IP-Setting we provide free the IP-Configurator as PC-Tool or Android-App.

IEEE 802.11 WEP/WPA/WPA2 Encoding

For a safety operation within a WLAN the possibility of using a WEP/WPA/WPA2-encoding exists. An uncoded operation (OPEN) is possible too.

High-quality and compact performance

The Wireless ArtNet-DMX 1.1 is built in compact aluminium housing with 3pin XLR-Connection for the DMX-line.

Firmware-Update-Function

To use prospective and further functions the Wireless ArtNet-DMX STAGE-PROFI 1.1 provides an integrated Firmware-Update-Function.

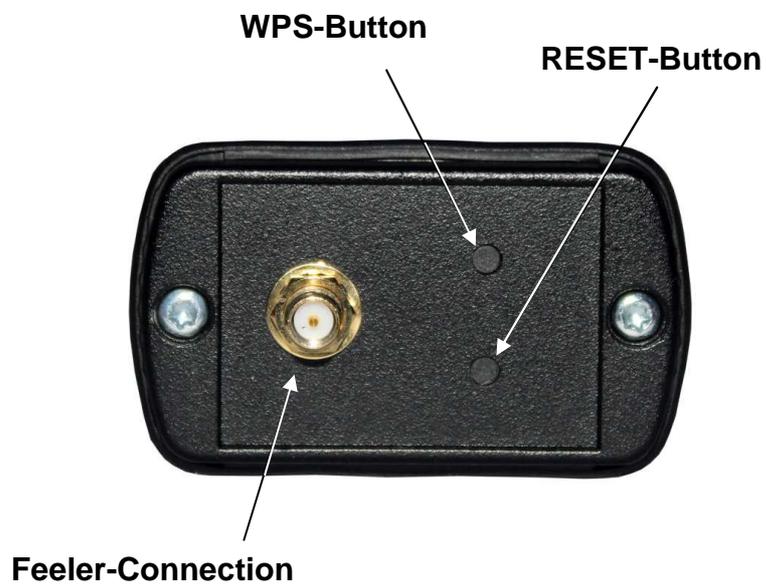
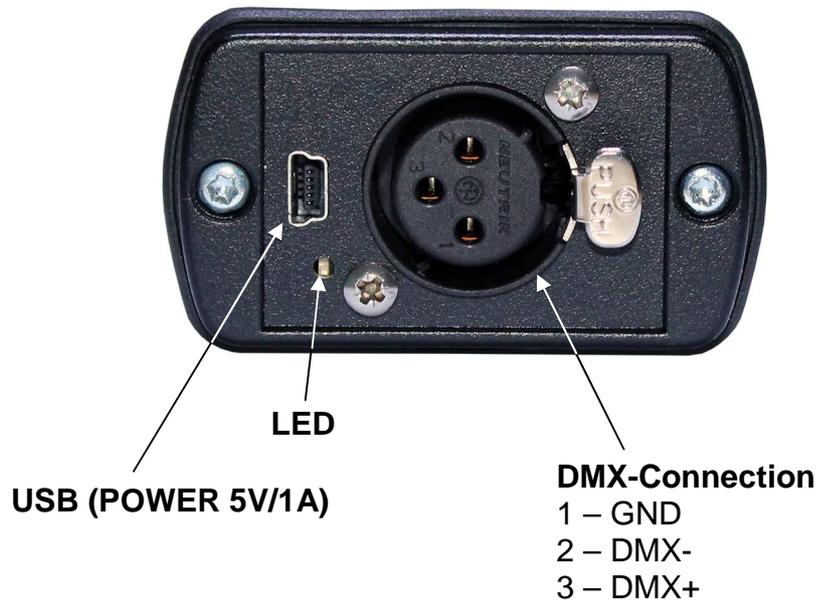
Data sheet

Power supply:	5V/1A DC via attached USB-power supply
Ethernet:	2.4GHz IEEE® 802.11 b/g/n Wi-Fi®
DMX:	3 pin XLR-Connecting female DMX-Direction adjustable: - 512 Channel OUT - 512 Channel IN <small>For DMX-IN a DMX-Adapter XLR-Male / XLR-Male 3pin is needed</small>
Protocol:	Art-Net™
Dimensions (LxBxH):	125 x 60 x 35 mm (without feeler)

Delivery

- Wireless ArtNet-DMX STAGE-PROFI 1.1
- WiFi-Feeler
- Mini USB Cable
- Power supply
- User manual (german)

Connection



Multi-Color-LED-Display

The Multi-Color-LED signals the several states of the Wireless ArtNet-DMX STAGE-PROFI 1.1.

Flashes RED	Device has no Wifi-Connection
Flashes RED 3x short / long Pause	Power supply incorrect Please check, if the USB-Connection respectively the power supply provides enough performance!
Flashes GREEN	No DMX-Signal existing
Flashes BLUE	Waiting for WPS-Answer
Lights RED	Device is not configured
Lights GREEN	Device works normally
Lights BLUE	Factory-Reset is running
RED /GREEN alternate	Device is within the Update-Mode

Quick Start with WPS

Please proceed as follows to run the Wireless ArtNet-DMX STAGE-PROFI 1.1 with the WPS-Function:

- Connect the Wireless ArtNet-DMX STAGE-PROFI 1.1 with the attached power supply.
- Start the WPS-Function at your Router/Access-Point.
- Push the WPS-Button at the Wireless ArtNet-DMX STAGE-PROFI 1.1 .
⇒ The LED flashes blue
- As soon as the LED lights permanently green the connection to your WiFi-Network is established. The IP is received via DHCP.
- Optionally you can adjust a fixed IP.
⇒ See section „*Set a fixed IP with IP-Configurator*“
- Art-Net details which are sent to the ArtNet-DMX STAGE-PROFI 1.1 are outputted via DMX. The Default settings are:
Universe: 0
SubNet: 0
Net: 0



The quick start with WPS instruction assumed that the Wireless ArtNet-DMX STAGE-PROFI 1.1 is located within the default settings at the beginning!

⇒ to generate the Default settings see section „*Factory Reset*“

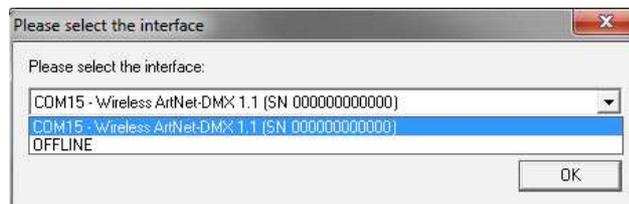
Device Configuration

For the configuration you need an USB-Connection to PC with the program DMX-Configurator.

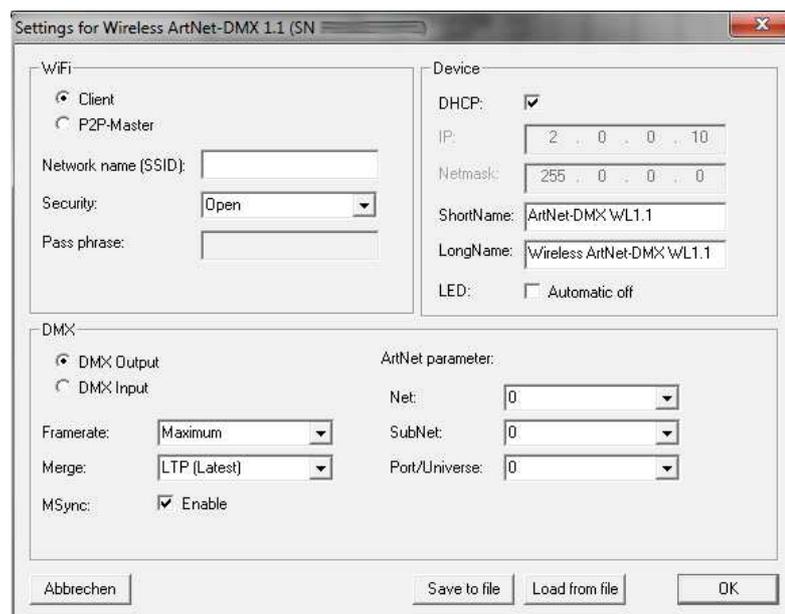
Proceed as follows to make the device configuration:

- Connect the Wireless ArtNet-DMX STAGE-PROFI 1.1 via USB to PC
 - ⇒ A USB-cable with MiniB-plug is needed
 - ⇒ Install the USB-driver if it does not exist so far
- Start the program DMX-Configurator (Minimum Version 2.4)
 - ⇒ Available as download by www.dmx4all.de

Please built a connection with the Wireless ArtNet-DMX STAGE-PROFI 1.1 within the DMX-Configurator



- Please call up under menu *Settings* → *Hardware Settings*
- Here the device configuration can be done



By clicking OK the settings are transferred and stored to the Wireless ArtNet-DMX STAGE-PROFI 1.1.

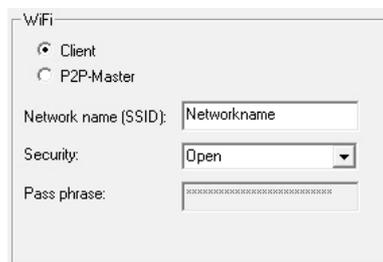
WiFi-Settings

The **Wireless ArtNet-DMX STAGE-PROFI 1.1** can be configured as WiFi-Client or P2P-Master.

Client

If the Wireless ArtNet-DMX STAGE-PROFI 1.1 is configured as Client, so the device registers itself to an Access-Point.

Therefore the network-name must be created under **Network name (SSID)**. The **Security-Mode** must be chosen and if necessary the password (**Pass phrase**) must be entered.



The screenshot shows a 'WiFi' configuration window. At the top, there are two radio buttons: 'Client' (which is selected) and 'P2P-Master'. Below this, there are three fields: 'Network name (SSID):' with a text input containing 'Networkname', 'Security:' with a dropdown menu set to 'Open', and 'Pass phrase:' with a masked text input.

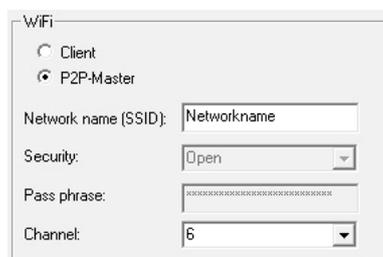


In this configuration the *Security-Mode Open, WPA/WPA2 or WEP (40 or 104)* can be used.

P2P-Master

If the Wireless ArtNet-DMX STAGE-PROFI 1.1 is configured as P2P-Master so a Client can register itself directly to this per WiFi. So a direct point to point connection is possible and no access point is needed.

For the WiFi-Connection the channel (Channel) is to assign which should be used.



The screenshot shows a 'WiFi' configuration window. At the top, there are two radio buttons: 'Client' and 'P2P-Master' (which is selected). Below this, there are four fields: 'Network name (SSID):' with a text input containing 'Networkname', 'Security:' with a dropdown menu set to 'Open', 'Pass phrase:' with a masked text input, and 'Channel:' with a dropdown menu set to '6'.



Each Art-Net-Device, which has the consistent settings for Net, Subnet and Port/Universe, accept the DMX-Data!

Device-Settings

Each device within the network need an own **IP-Address**, so the assignment occurs clearly within the network. It can be get automatically per DHCP or set fixed.

Is **DHCP** active, the IP is get automatically.

Is DHCP not active, the **IP** and **Netmask** must adjust manual.



Use in accordance to the ArtNet-Specifications the IP-Address 2.x.x.x or 10.x.x.x . In this case the Netmask must be set to 255.0.0.0 .

Any other IP-Address can also be used e.g. 192.168.1.10 .
In this case the Net-mask has to be fit to 255.255.255.0 !

You can assign each device with any name for a better distinction.
The **Short-Name** is limited up to 18 signs and the **Long-Name** up to 64 signs.

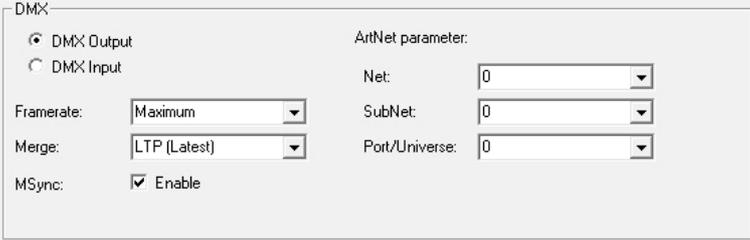
Is the option **LED Automatic off** activated the LEDs at the device are shut off automatically after 10 minutes operation with permanent network connection.

DMX-Settings

The **Wireless ArtNet-DMX STAGE-PROFI 1.1** can be configured as DMX-Output (Art-Net to DMX) or DMX-Input (DMX to Art-Net).

DMX-Output (Art-Net to DMX)

To use the **Wireless ArtNet-DMX STAGE-PROFI 1.1** as DMX-Output-Interface, the Interface-Mode **DMX-Output** must be chosen.



The screenshot shows a configuration window titled "DMX". It contains the following settings:

- DMX Output** (selected with a radio button)
- DMX Input** (unselected with a radio button)
- ArtNet parameter:**
 - Net:** 0
 - SubNet:** 0
 - Port/Universe:** 0
- Framerate:** Maximum
- Merge:** LTP (Latest)
- MSync:** Enable

The parameters **Net**, **SubNet** and **Port/Universe** specify which DMX-data should be used.

Framerate specifies the maximal DMX-Frame rate.

Maximum complies the maximal frame rate of ca. 44 fps (Frames/second).

The **Merge** setting can be adjusted to LTP (Latest) or HTP (Highest).

Via **ArtSync/MSync** the DMX-output of several Art-Net-devices can be synchronized by using the Software MADRIX®

DMX-Input (DMX to ArtNet)

To use the **Wireless ArtNet-DMX STAGE-PROFI 1.1** as DMX-Input-Interface, the Interface-Mode **DMX- Input** must be chosen.

The screenshot shows a configuration window titled 'DMX'. On the left, there are two radio buttons: 'DMX Output' (unselected) and 'DMX Input' (selected). Below these are three dropdown menus: 'Update-Rate' set to 'DMX-Framerate', and 'DMX-Fail' set to 'NO DMX'. On the right, under 'ArtNet parameter:', there are three dropdown menus: 'Net' set to '0', 'SubNet' set to '0', and 'Port/Universe' set to '0'. Below these is a checkbox for 'Dest. IP:' which is checked and labeled 'Broadcast'. At the bottom right, there is an empty text input field for a specific IP address.

The **Update-Rate** can be adjusted with which the DMX-Input data should be outputted via Art-Net.

40Hz ... 5Hz
On change data
DMX Frame rate

- The DMX-Data will be outputted with the adjusted transfer rate
- DMX-Data are only transferred if these change
- DMX-Data are transferred as soon as a frame is closed.
So the frame rate from the inputted DMX-Signal will be used for the Update-Rate.

Several actions can be chosen for the DMX-Input in the case of a DMX-Signal (**DMXFAIL**).

NO DATA	- via Art-Net is no DMX-Input received
HOLD last DMX data	- the last data are retained
CLEA all channels to 0%	- all DMX-Channels are set to 0
SET all channels to 100%	- all DMX-Channels are set to 255

The Art-Net-Parameters **Net**, **SubNet** and **Port/Universe** specify the DMX-Data source.

Via Art-Net the DMX-Data are sent to the **Dest. IP** (Destination IP). This is to adjust in the same way as the Device-IP.

If **Broadcast** is activated, like in the image, so the DMX-Data are sent per Art-Net in the whole net work to ALL devices.

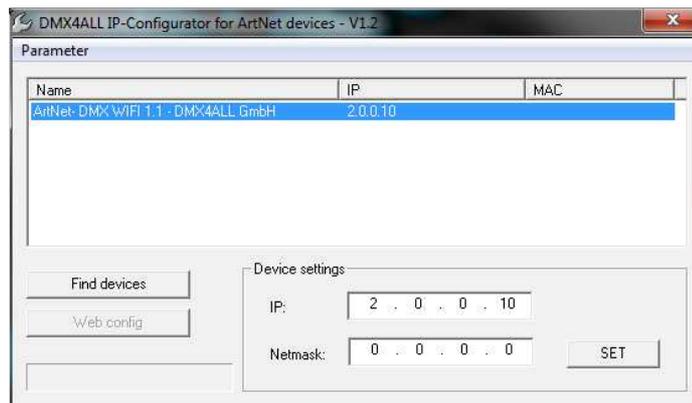


Each Art-Net-Device, which has the consistent settings for Net, Subnet and Port/Universe, accept the DMX-Data!

Adjust a fixed IP with the IP-Configurator

The **IP-Configurator** allows the IP-Address setting and the net mask setting of the Wireless ArtNet-DMX STAGE-PROFI 1.1 .

- Install the program IP-Configurator
- Connect the Wireless ArtNet-DMX STAGE-PROFI 1.1 with the network
- Start the program IP-Configurator



- A Wireless ArtNet-DMX STAGE-PROFI 1.1 is shown in the list
- Choose the entry (by clicking)
- Please enter a new IP and net mask
- Click to SET

Register in WiFi/WLAN via Webinterface with Smartphone

The entry of the WiFi/WLAN-access data can occur via Webinterface too. Therefore access data must not be available. If necessary make a Factory-Reset.

Gehen Sie dazu wie folgt vor:

- Connect the Wireless ArtNet-DMX STAGE-PROFI 1.1 with the attached power supply.
- Activate WiFi/WLAN within your Smartphone
- Select the **WLAN ArtNet STAGE-PROFI 1.1** from the list of the available devices and occur *Connection*:



- According to the Smartphone respectively the operating systems version the following note appears. Click the note:



Alternatively you can open the web browser and open the site **dmx4allconfig.com**

- An entry field appears in which you can enter the WiFi/WLAN access data:



- Click to connect. The Wireless ArtNet-DMX STAGE-PROFI 1.1 closes now the connection to the WiFi/WLAN-Network.

Factory Reset

The **Wireless ArtNet-DMX STAGE-PROFI 1.1** can be set back into the delivery status.

Please proceed as follows:

- Press RESET ca. 5 seconds until the RESET-LED shines
- Release the RESET and the Wireless ArtNet-DMX STAGE-PROFI 1.1 will be set back into the delivery status.

Execute the Firmware Update

The **Wireless ArtNet-DMX STAGE-PROFI 1.1** has an Update-Function, which allows transferring prospective firmware-versions.

Please proceed as follows:

- Turn off the device
- Establish a USB-Connection to PC
- Press RESET and turn on the Wireless ArtNet-DMX STAGE-PROFI 1.1
- The WPS-LED and RESET-LED flashes alternate
- Install the USB-Driver if necessary
- Start the Update-Software **DMX4ALL USB- Updater**
- Select the **Wireless ArtNet-DMX STAGE-PROFI 1.1** from the list
- Click *Firmware-Update*
- Select the Firmware-Datei (.bin) and confirm
- Wait until the Update has finished



If an error occurs during the update you can start at the beginning at any time.

CE-conformity



This assembly (board) is controlled by a microprocessor and uses high frequency (8MHz). To get the characteristics of the assembly in relation to the CE-conformity, an installation in a compact metal casing is necessary.

Risk-Notes

You purchased a technical product. Conformance 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



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