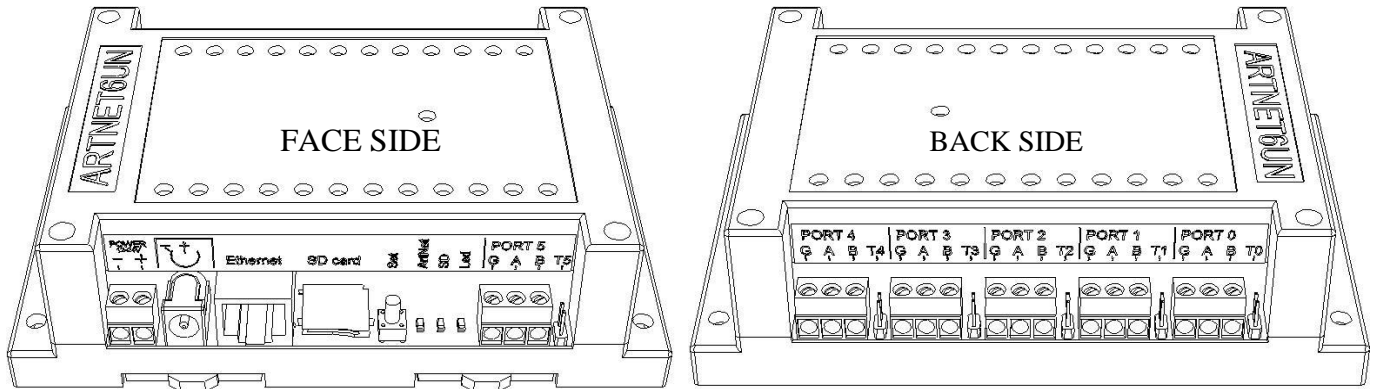


User manual 27.01.13



**Components on board:**

- Two connectors for power supply
- 10/100 Ethernet connector
- SDmicro flash card
- Control button «Set»
- Six two-pin terminator, connects 120 Ohm resistor between lines A and B («T0»-«T5»)
- Art-Net LED activity («Artnet»)
- File system LED activity («SD»)
- Power LED («Led»)
- Six connectors for DMX output

**Electrical:**

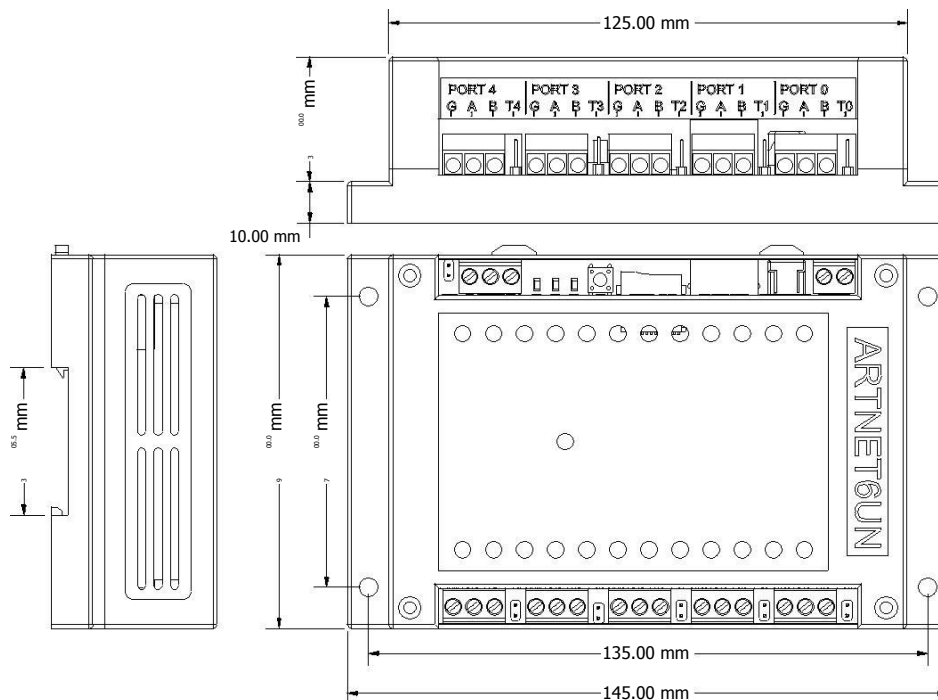
- Supply voltage 7V - 24V
- Supply current of the controller 350 mA
- DMX lines have overload protection
- Operation Range -40°C to 50°C figure

**Features of firmware:**

- Ethernet to DMX 512/1990
- Ethernet protocol Art-Net III
- Up to six DMX 512 ports output
- Up to six DMX 512 ports input
- Web server for configuration net and Art-Net
- 40 Hz for each universe
- Buffer for eight packages for each universe

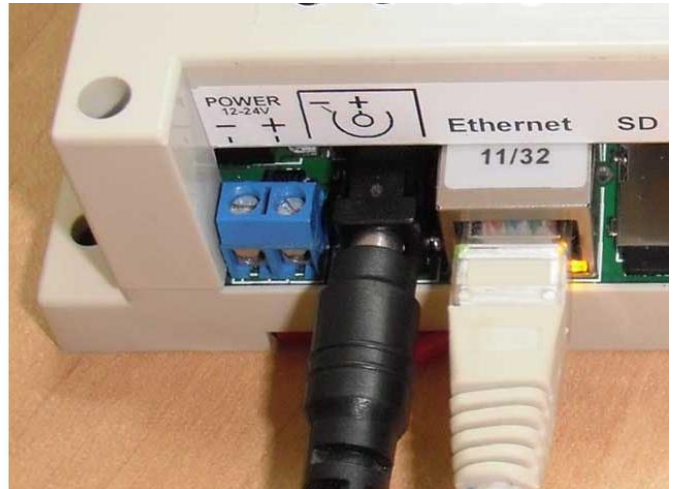
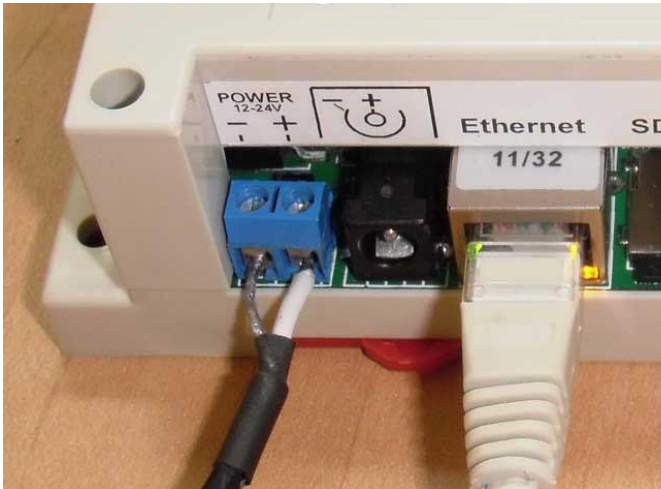
**Mechanical:**

Weight: 170 grams. Installation on DIN rail  
35 mm.



# AN6DMX V1.0

## 1. Connect the power supply and Ethernet



### 1.1 Power:

Power connection may be with any connectors. DC adapter should have output current 500mA. minimum. The supply voltage must be 7V - 24V. All connected devices must be grounded.

### 1.2 Configure network:

These is the defaults settings:

IP: 2.0.0.2  
MASK: 255.0.0.0  
MAC: 12:45:78:98:34:76  
Gateway IP: 192.168.0.1

These settings can be changed via the web server, or Art-Net software ( [Art-Net test Software](#)). IP: 2.0.0.2

MASK: 255.0.0.0

These settings can be changed only via the web server. MAC: 12:45:78:98:34:76

Gateway IP: 192.168.0.1

### 1.3 Setup network default procedure:

- Disable controller's power supply.
- Push button «Set». Hold down the button.
- Enable controller's power supply.
- Wait two seconds.
- Release the button «Set»

### 1.4 Example of network settings for the connected PC:

<input type="radio"/>	Obtain an IP address automatically
<input checked="" type="radio"/>	Use the following IP address:
IP address:	2 . 0 . 0 . 100
Subnet mask:	255 . 0 . 0 . 0
Default gateway:	. . .

## 2. SDmicro card

### 2.1 Function:

a. Card necessary to store files of the web server and configuration.

The card format is: FAT16/32.

b. The directory structure is:



This structure you can not change. Not permitted to modify the files in WEB directory: «IPCFG.HTM», «IPCFGCH.HTM», «ANCFG.HTM». Other files can be changed to improve the design. Directory «CFG» file contains «AN\_6\_00.CFG». This file contains all the settings of the controller.

c. All the attributes of the files must be in the off position.

d. Replace a file «AN\_6\_00.CFG» on the base, makes the configuration as default.

## 3. Control button «Set»

3.1 This button is used: [Setup network default procedure](#)

3.2 Start firmware upgrade.

a. Disable controller power supply.

b. Unpack and copy file «an6\_00.img» to miniSD card, in the main directory . Insert the miniSD card to miniSD slot.

c. Push button «Set». Hold down the button.

d. Enable controller's power supply.

e. Wait for downloading of the image.

f. Delete «an6\_00.img» file from the flash.

## 4. DMX terminator

4.1 All of DMX ports has a two-pin connector for resistor 120-ohm. If the connector is closed then the resistor become connect to the lines A and B. Connector should be closed just when the port is connected as an input and the controller is on the end of the line DMX.

## 5. Art-Net LED activity

5.1 Displays the reception of the packets Art-Net.

5.2 Displays the flash memory operations of the processor.

## 6. File system LED activity

6.1 Displays file system requests.

6.2 Displays errors of the image loading.

## 7. Art-Net configuration

7.1 The controller can be configured in two ways. Through a web user interface and via Art-Net protocol.

7.2 To enter you need to dial in your browser: <http://2.0.0.2> (if address as default). Click on the link «ArtNet config».

ShortName:	Ed6_00_00
LongName:	Electron-design artnet_6_00 Art-Net node_0

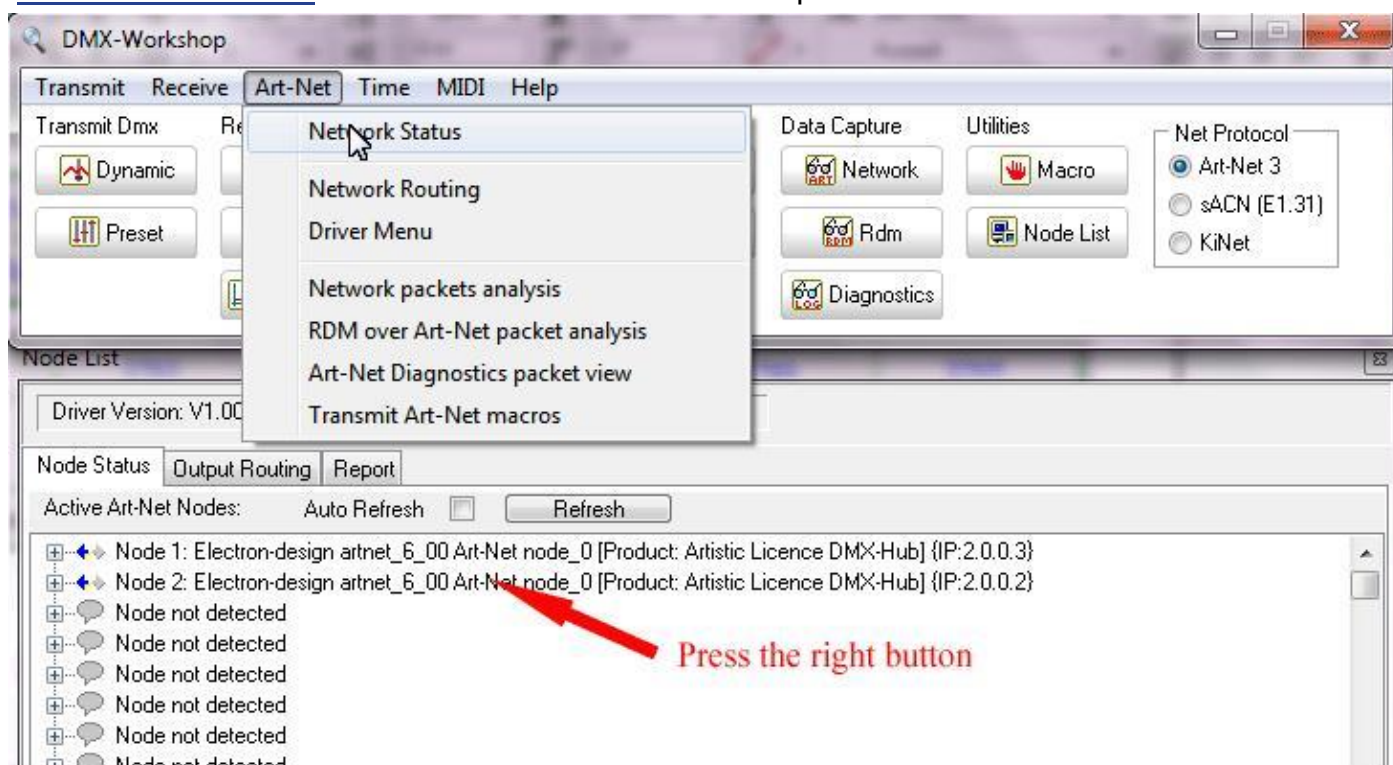
UN0	UN1	UN2	UN3	UN4	UN5
<input type="radio"/> In <input checked="" type="radio"/> Out	<input type="radio"/> In <input checked="" type="radio"/> Out	<input type="radio"/> In <input checked="" type="radio"/> Out	<input type="radio"/> In <input checked="" type="radio"/> Out	<input type="radio"/> In <input checked="" type="radio"/> Out	<input type="radio"/> In <input checked="" type="radio"/> Out
0 -Port	1 -Port	2 -Port	3 -Port	4 -Port	5 -Port

0 -Net	0 -SubNet
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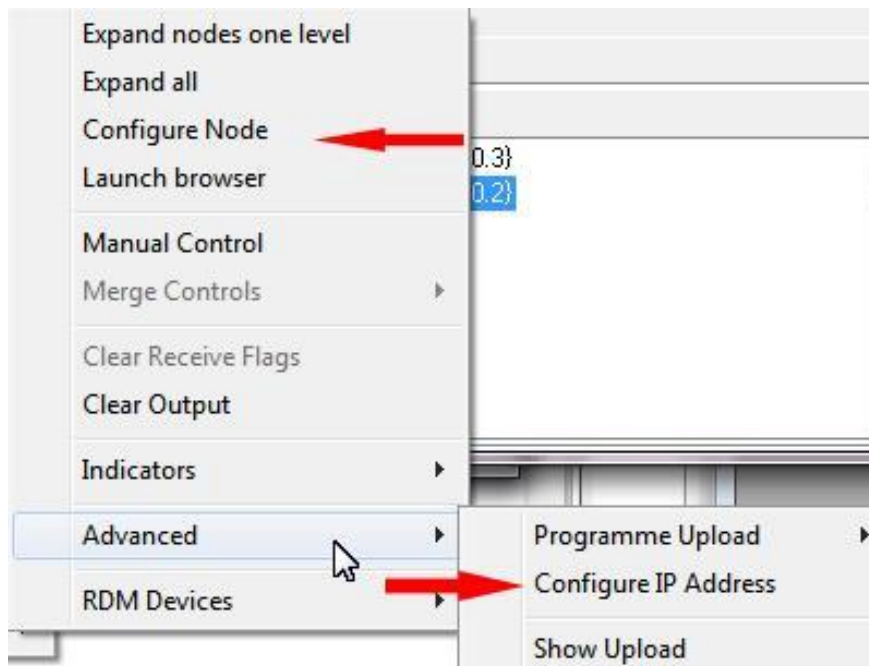
ArtNet Config

7.3 To save the configuration you must click on the button «ArtNetConfig». The controller will restart with the new SETUP.

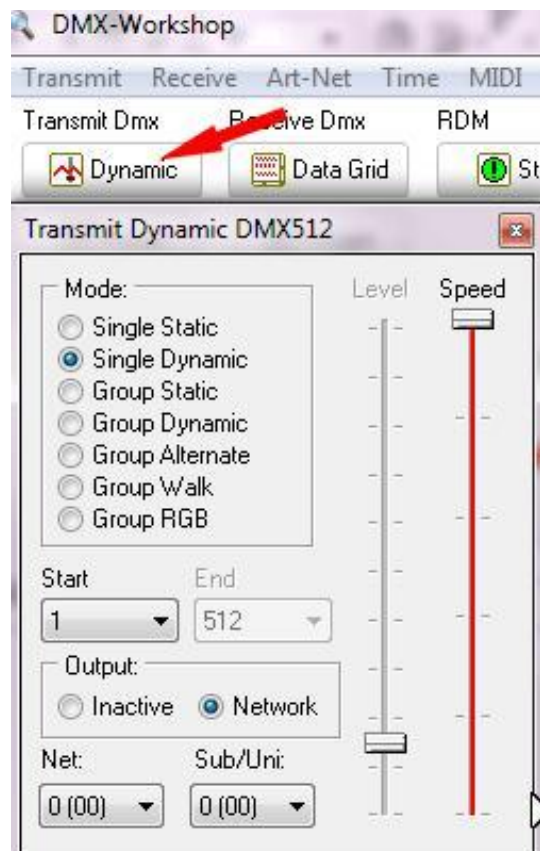
7.4 You can configure the controller by Art-Net protocol. You must download the free software: [Art-Net test Software](#) and run software «DMX-Workshop».



# AN6DMX V1.0



7.5 You can test output and input.



## 8. Port 5 and 6 configuration

8.1 Art-Net protocol has a single IP address for 4 ports. Ports 5 and 6 have a virtual IP address. This address is required for the automatic detection of ports 5 and 6. Ports 5 and 6 should receive as BROADCAST. Ports 5 and 6 should receive BROADCAST, if there is a single controller in the system.

8.2 Ports 5 and 6 always get messages to the IP address of the controller (not virtual). If there are more than one controller in the system, then necessary a UNICAST messages. In this case, you must configure the port 5 and 6 manually.

Network Configuration	
Source IP	<input type="text" value="2.0.0.2"/>
Gateway IP	<input type="text" value="192.168.0.1"/>
Subnet Mask	<input type="text" value="255.0.0.0"/>
MAC Address	<input type="text" value="12:45:78:98:34:76"/>
Virtual IP	<input type="text" value="2.0.0.3"/> ← Univers 5 and 6
Input Unicast IP	<input type="text" value="2.0.0.100"/> <input type="radio"/> On <input checked="" type="radio"/> Off

## 9. Ports as inputs

9.1 Any port can be configured as input. If the box «Input Unicast IP» set as «On», then the packets will be send to the address specified in this field. **If this address does not exist, then DMX line is delayed.** If the box «Input Unicast IP» set as «Off», then the packets will be send to the BROADCAST address.

## 10. DMX output.

10.1 You can use two different image. They different in the method output DMX packets and synchronization with Art-Net packets.

10.2 Images of available on the page eBay.

10.3 The first image is a full sync with packets Art-Net. DMX is present on the line only if the Art-Net packet is passed. Packet rate should not be more than 30 fps. This image is recommended for video applications. The number of transmitted channels is always equal to the number of channels in the package Art-Net.

10.4 The second image is constantly generated DMX. The number of transmitted channels is always 512.

Art-Net packets can be transmitted at high speed. Recommended for use with the control cabinet.

# AN6DMX V1.0

