

DMX Pixel-Router

User Guide



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Version 2015: All technical data and the weight and dimension information were carefully created – errors reserved. Any colour deviations are printing-related.

We reserve the right to make changes that serve further improvement.

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Overview

The DMX Pixel-Router is a powerful and efficient Ethernet DMX converter that also allows LED systems from third party providers to be controlled with Schnick-Schnack-Systems proven technology.

With its video-to-LED enhanced processor, the DMX Pixel-Router far outpaces the competition. It has an optimized, multi-tasking, real-time operating system to process and transmit video data synchronously and with very low latency.

The DMX Pixel-Router is compatible with the protocols sACN and Art-Net™ by using the Ethernet input. Schnicknet is of course also supported. The DMX Pixel-Router is one of the few devices on the market that can process Ethernet bursts with more than 250 universes.

Because it uses the Generation 3 System Wide Sync from Schnick-Schnack-Systems, all four DMX outputs are synchronized with the source. (Prerequisite: the source must also use the System Wide Sync, for example the Pixel-Gate)

Optically isolated outputs provide an additional operational reliability, which is especially important for larger installations. Mounting takes place via a top-hat rail.

The Router can be completely configured remotely thanks to an integrated HTML 5.0 web server and out having to rely on additional software.

Upon delivery, the Router is in Demo mode (consecutive color gradient) on all four outputs.

Connectivity

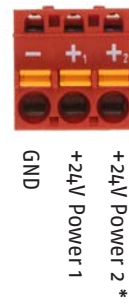
The following connectors are located on the unit:



pin assignment
DMX Out 1-4



pin assignment
Power



- Out 1-4 DMX output
- Ethernet Ethernet input
- Power 24V connection

*Redundant power supply is optional for increased operational reliability

Menu

The following LEDs are located on the front of the unit:



ID	Lights up blue when the search/highlight function is activated in the web server	Link	Lights up yellow when data is being received
Power	Lights up red when hooked up to electricity	Out 1-4	Lights up green when a DMX signal for the corresponding output is received and transmitted
ETH	Lights up green when a physical Ethernet connection exists		

Reset

To activate the Reset button, poke a thin object through the opening at the front. You can re-start the unit by pressing the Reset button briefly. If you press the Reset button longer than five seconds, the unit returns to the factory settings and re-starts (Power LED blinks). When you press the Reset button longer than 15 seconds, the IP setting also is re-set in addition to the factory settings (ID LED blinks) and the unit re-starts.

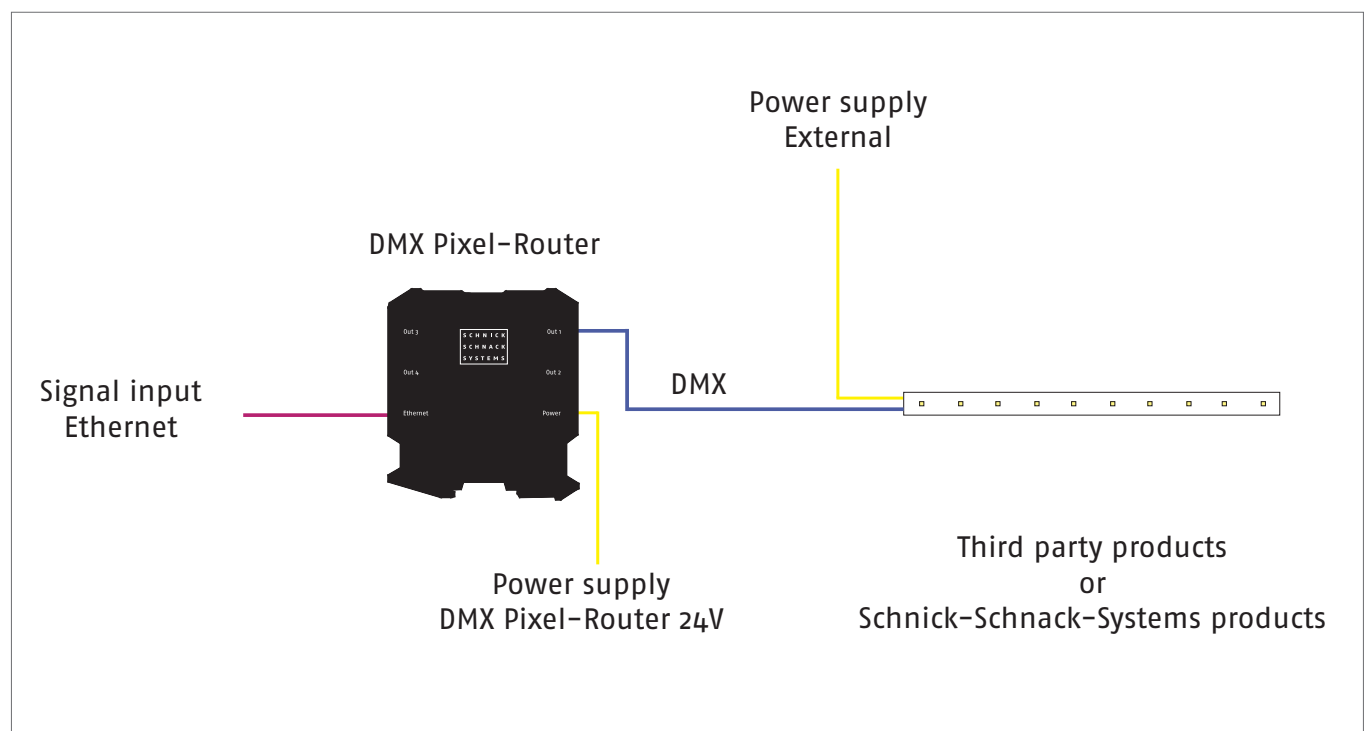
System Start-Up

Check the device for any damage incurred during transit immediately after unpacking. A damaged unit must not be put into operation.

If the DMX Pixel-Router has been taken from a cold environment into a warm interior after transportation, allow at least one hour for it to warm up before it is put into operation. This allows possibly formed condensation to evaporate and therefore the electronics are not endangered. When in operation, please make sure that the ventilation slits are not covered up. The supply air temperature should not exceed 35°C.

Keep the unit out of direct sunlight at all times. Never clean the device with aggressive cleaners. For cleaning purposes, the wiping of the device with a moist cloth is sufficient. In the case of stubborn dirt, a mild cleaner can be used on the moistened cloth.

System Cabling



To Access the Web Server

Step 1

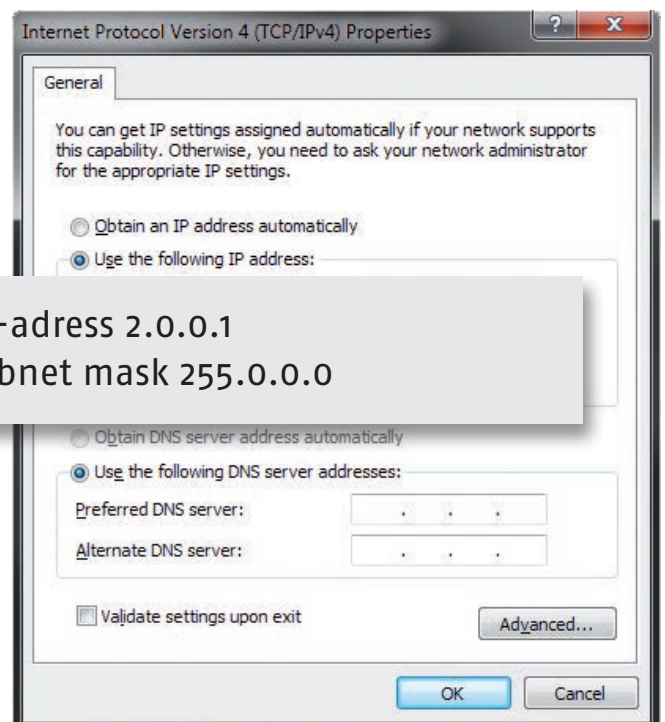
Connect the PC and the device with a network cable.



Step 2

Configure the network card for Art-Net™.

Caution: please note previous settings so they can be entered again later.



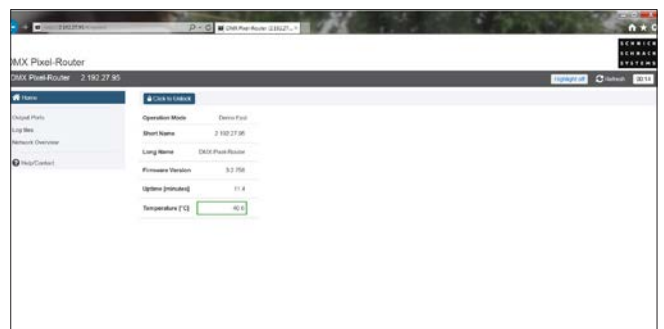
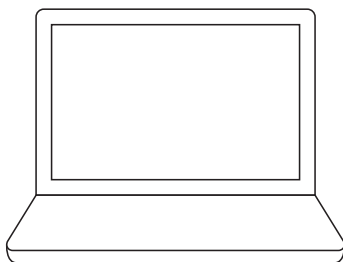
Step 3

Find the Router's IP address on the back of the unit.



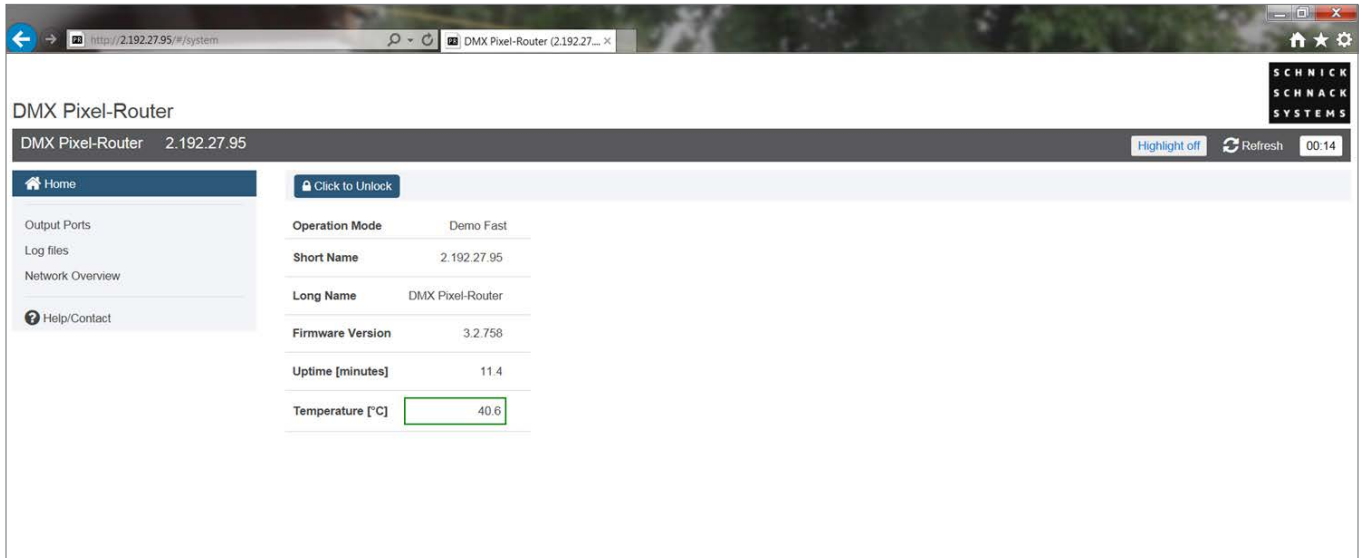
Step 4

Enter IP address in the browser.



Web Server Settings

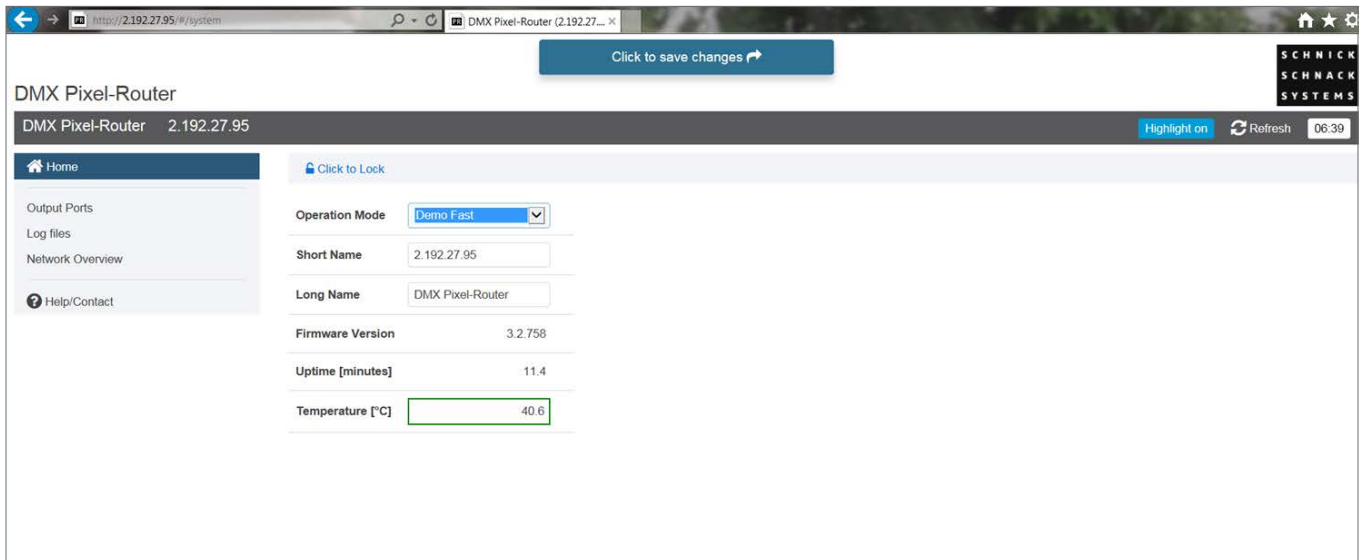
Homepage



This is where the basic data for the DMX Pixel-Router is displayed.

Highlight off/on: when switching to Highlight on, the blue ID-LED lights up on the Router. With the help of the Highlight-Button, especially for larger installations, the device that it's being configured via the web server can be detected.

By clicking on "click to unlock" you can change the Operation Mode as well as the name of the Power Supply.



Operation Mode

The following modes are available for your use:

QuickPatch Network

The QuickPatch Network mode offers the possibility to handle several universes and allows to assign universes and start addresses to the outputs.

Manual RGB

In this menu option, it's possible to set a colour for all output channels in a very easy way by using the DMX Pixel-Router.

Demo Fast/Demo Slow

In this mode, all connected RGB luminaries show a repetitive predetermined colour change. The two modes differ only in the throughput speed.

Update

New software versions keep products up to date with the latest features and are available on request.

Press **"Click to save changes"** to save changes.

Short Name/Long Name

In this field, you can give the DMX Pixel-Router an individual name.

The names are shown in the grey list making it easier to identify the DMX Pixel-Router.

They will also be shown in the network overview as well as in some Art-Net™ capable devices or software tools.

Output Ports

DMX Pixel-Router 2.192.27.95

Home

Output Ports

Log files

Network Overview

Help/Contact

	OUT 1	OUT 2	OUT 3	OUT 4
Output Mode	Dmx512	Dmx512	Dmx512	Dmx512
Colour Gain [R/G/B]	255 255 255	255 255 255	255 255 255	255 255 255
Universe	0	1	2	3
Start Channel	1	1	1	1
Artnet Status	no signal	no signal	no signal	no signal
Framerate [Hz]	35.7	35.7	35.7	35.7
Used Universes	1	1	1	1

Under the menu item "Output Ports" you can see an overview of the outputs of the Router. Here you can set the **Output Mode (optional)** and the Colour Gain.

Output Mode

In this version of the Pixel-Router, only DMX512 is available.

Colour Gain

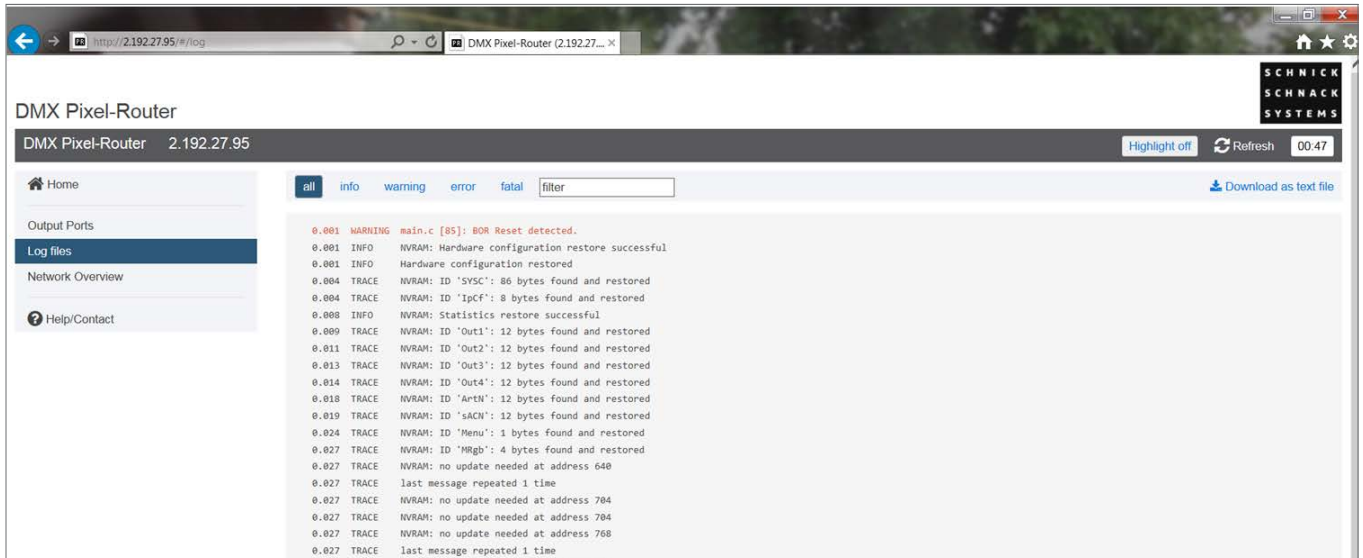
With this function, the colour channels red, green and blue can be set darker. With 255, this function is deactivated.



Refresh

Page is reloaded, unsaved changes will be lost.

Log Files

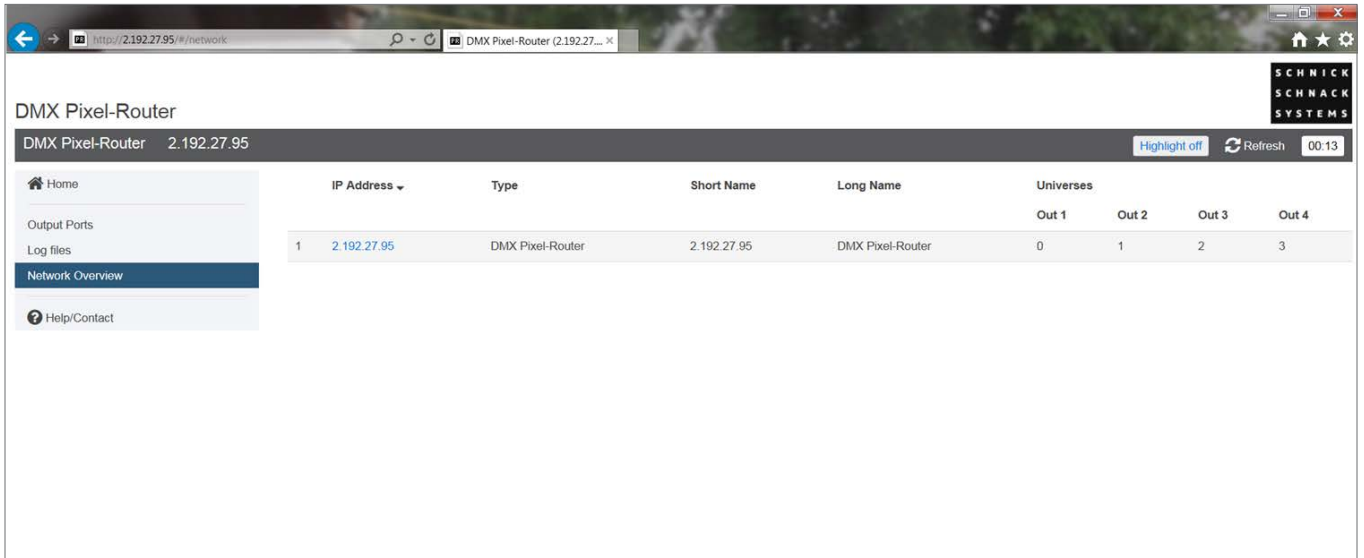


Service page for error analysis (internal).

The processes in the Router are logged and if applicable make error analysis easier.

If needed, the log files can be downloaded as a TXT File with "Download as". Log files will be lost in the event of re-starting or power loss and will be re-logged from that moment on.

Network Overview



The screenshot shows a web browser window displaying the 'DMX Pixel-Router' network overview page. The browser's address bar shows the URL 'http://2.192.27.95/#/network'. The page title is 'DMX Pixel-Router'. The interface includes a navigation menu on the left with options: Home, Output Ports, Log files, Network Overview (highlighted), and Help/Contact. The main content area features a table with the following columns: IP Address, Type, Short Name, Long Name, and Universes. The 'Universes' column is further divided into 'Out 1', 'Out 2', 'Out 3', and 'Out 4'. A single row of data is visible, representing a DMX Pixel-Router at IP address 2.192.27.95. The interface also includes a 'Highlight off' button, a 'Refresh' button, and a timer showing '00:13'. The SCHNICK-SCHNACK-SYSTEMS logo is visible in the top right corner.

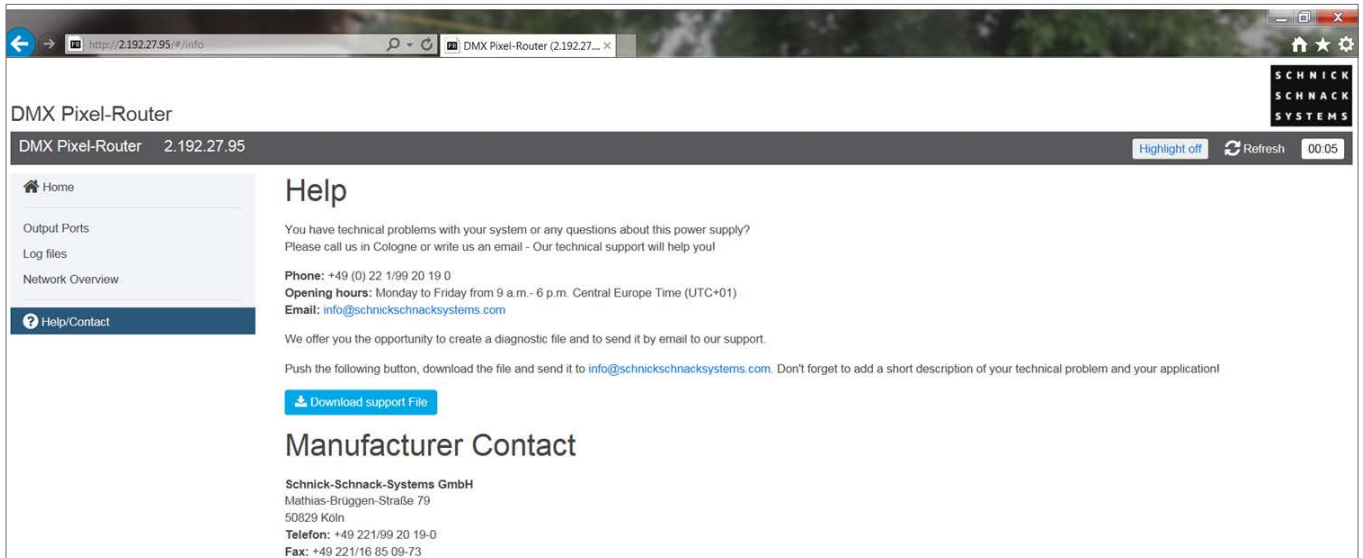
	IP Address	Type	Short Name	Long Name	Universes			
					Out 1	Out 2	Out 3	Out 4
1	2.192.27.95	DMX Pixel-Router	2.192.27.95	DMX Pixel-Router	0	1	2	3

This page clearly lists all DMX Pixel-Router found in the same network.

Clicking on the IP address takes you to the website of the respective device.

The list can be sorted according to for example IP address or Short Name by clicking on the relevant column headings.

Help/Contact



The screenshot shows a web browser window displaying the DMX Pixel-Router interface. The browser's address bar shows the URL `https://2.192.27.95/#/info`. The page title is "DMX Pixel-Router" and the status bar shows "DMX Pixel-Router 2.192.27.95". The interface includes a navigation menu on the left with options: Home, Output Ports, Log files, Network Overview, and Help/Contact (which is currently selected). The main content area is titled "Help" and contains the following text:

You have technical problems with your system or any questions about this power supply? Please call us in Cologne or write us an email - Our technical support will help you!

Phone: +49 (0) 22 1/99 20 19 0
Opening hours: Monday to Friday from 9 a.m. - 6 p.m. Central Europe Time (UTC+01)
Email: info@schnickschnacksystems.com

We offer you the opportunity to create a diagnostic file and to send it by email to our support.

Push the following button, download the file and send it to info@schnickschnacksystems.com. Don't forget to add a short description of your technical problem and your application!

[Download support File](#)

Manufacturer Contact

Schnick-Schnack-Systems GmbH
Mathias-Bruggen-Straße 79
50829 Köln
Telefon: +49 221/99 20 19-0
Fax: +49 221/16 85 09-73

Press **"Download Support"** to download **log files** that help with error analysis.

Technical Data

Dimensions	17 × 100 × 114 mm (W × H × D)
Operating voltage	DC voltage 24 V
Power consumption	3,2 W
Power connection	Phoenix cable plug with redundant power supply, securing better operational reliability especially for larger installations
DMX protocol	DMX 512 A-1990 USITT
DMX output	Phoenix cable plug optically isolated
Network input	RJ45 socket with integrated transformer
Network protocol	Art-Net™, Schnicknet, sACN (ANSII)
Weight	95 g

Pin Connection

DMX 5pin connector

1	2	3	4	5	Case
Data GND	Data-	Data+	n/a	n/a	n/a

Connectors Schnick-Schnack-Systems

1	■	GND
2	■	DMX -
3	■	DMX +
4	■	24 V

Conversion Table Art-Net™ Universes

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
0	0	0	1
0	1	1	2
0	2	2	3
0	3	3	4
0	4	4	5
0	5	5	6
0	6	6	7
0	7	7	8
0	8	8	9
0	9	9	10
0	A	10	11
0	B	11	12
0	C	12	13
0	D	13	14
0	E	14	15
0	F	15	16
1	0	16	17
1	1	17	18
1	2	18	19
1	3	19	20
1	4	20	21
1	5	21	22
1	6	22	23
1	7	23	24
1	8	24	25
1	9	25	26
1	A	26	27
1	B	27	28
1	C	28	29
1	D	29	30
1	E	30	31
1	F	31	32
2	0	32	33
2	1	33	34
2	2	34	35
2	3	35	36
2	4	36	37
2	5	37	38
2	6	38	39

Art-Net™ Standard (Hexadecimal Numbering)	Universe	Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
2	7	39	40
2	8	40	41
2	9	41	42
2	A	42	43
2	B	43	44
2	C	44	45
2	D	45	46
2	E	46	47
2	F	47	48
3	0	48	49
3	1	49	50
3	2	50	51
3	3	51	52
3	4	52	53
3	5	53	54
3	6	54	55
3	7	55	56
3	8	56	57
3	9	57	58
3	A	58	59
3	B	59	60
3	C	60	61
3	D	61	62
3	E	62	63
3	F	63	64
4	0	64	65
4	1	65	66
4	2	66	67
4	3	67	68
4	4	68	69
4	5	69	70
4	6	70	71
4	7	71	72
4	8	72	73
4	9	73	74
4	A	74	75
4	B	75	76
4	C	76	77
4	D	77	78

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
4	E	78	79
4	F	79	80
5	0	80	81
5	1	81	82
5	2	82	83
5	3	83	84
5	4	84	85
5	5	85	86
5	6	86	87
5	7	87	88
5	8	88	89
5	9	89	90
5	A	90	91
5	B	91	92
5	C	92	93
5	D	93	94
5	E	94	95
5	F	95	96
6	0	96	97
6	1	97	98
6	2	98	99
6	3	99	100
6	4	100	101
6	5	101	102
6	6	102	103
6	7	103	104
6	8	104	105
6	9	105	106
6	A	106	107
6	B	107	108
6	C	108	109
6	D	109	110
6	E	110	111
6	F	111	112
7	0	112	113
7	1	113	114
7	2	114	115
7	3	115	116
7	4	116	117

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
7	5	117	118
7	6	118	119
7	7	119	120
7	8	120	121
7	9	121	122
7	A	122	123
7	B	123	124
7	C	124	125
7	D	125	126
7	E	126	127
7	F	127	128
8	0	128	129
8	1	129	130
8	2	130	131
8	3	131	132
8	4	132	133
8	5	133	134
8	6	134	135
8	7	135	136
8	8	136	137
8	9	137	138
8	A	138	139
8	B	139	140
8	C	140	141
8	D	141	142
8	E	142	143
8	F	143	144
9	0	144	145
9	1	145	146
9	2	146	147
9	3	147	148
9	4	148	149
9	5	149	150
9	6	150	151
9	7	151	152
9	8	152	153
9	9	153	154
9	A	154	155
9	B	155	156

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
9	C	156	157
9	D	157	158
9	E	158	159
9	F	159	160
A	0	160	161
A	1	161	162
A	2	162	163
A	3	163	164
A	4	164	165
A	5	165	166
A	6	166	167
A	7	167	168
A	8	168	169
A	9	169	170
A	A	170	171
A	B	171	172
A	C	172	173
A	D	173	174
A	E	174	175
A	F	175	176
B	0	176	177
B	1	177	178
B	2	178	179
B	3	179	180
B	4	180	181
B	5	181	182
B	6	182	183
B	7	183	184
B	8	184	185
B	9	185	186
B	A	186	187
B	B	187	188
B	C	188	189
B	D	189	190
B	E	190	191
B	F	191	192
C	0	192	193
C	1	193	194
C	2	194	195

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
C	3	195	196
C	4	196	197
C	5	197	198
C	6	198	199
C	7	199	200
C	8	200	201
C	9	201	202
C	A	202	203
C	B	203	204
C	C	204	205
C	D	205	206
C	E	206	207
C	F	207	208
D	0	208	209
D	1	209	210
D	2	210	211
D	3	211	212
D	4	212	213
D	5	213	214
D	6	214	215
D	7	215	216
D	8	216	217
D	9	217	218
D	A	218	219
D	B	219	220
D	C	220	221
D	D	221	222
D	E	222	223
D	F	223	224
E	0	224	225
E	1	225	226
E	2	226	227
E	3	227	228
E	4	228	229
E	5	229	230
E	6	230	231
E	7	231	232
E	8	232	233
E	9	233	234

Art-Net™ Standard (Hexadecimal Numbering)		Schnick-Schnack-Systems (Decimal Numbering)	MA-Lighting Numbering
Subnet	Universe		
E	A	234	235
E	B	235	236
E	C	236	237
E	D	237	238
E	E	238	239
E	F	239	240
F	0	240	241
F	1	241	242
F	2	242	243
F	3	243	244
F	4	244	245
F	5	245	246
F	6	246	247
F	7	247	248
F	8	248	249
F	9	249	250
F	A	250	251
F	B	251	252
F	C	252	253
F	D	253	254
F	E	254	255
F	F	255	256

Why Schnick Schnack Systems?

As installation times become increasingly shorter the complexity of systems simultaneously increases as do the requirements of customers.

We are a supplier who delivers high-quality reliable systems – under tight deadline constraints that are not only quick to install but also simple to operate and service.

Schnick-Schnack-Systems GmbH

Mathias-Brüggen-Straße 79
50829 Cologne (Germany)

Phone +49 (0) 221/99 2019-0
Fax +49 (0) 221/16 85 09-73

info@schnickschnacksystems.com
www.schnickschnacksystems.com