

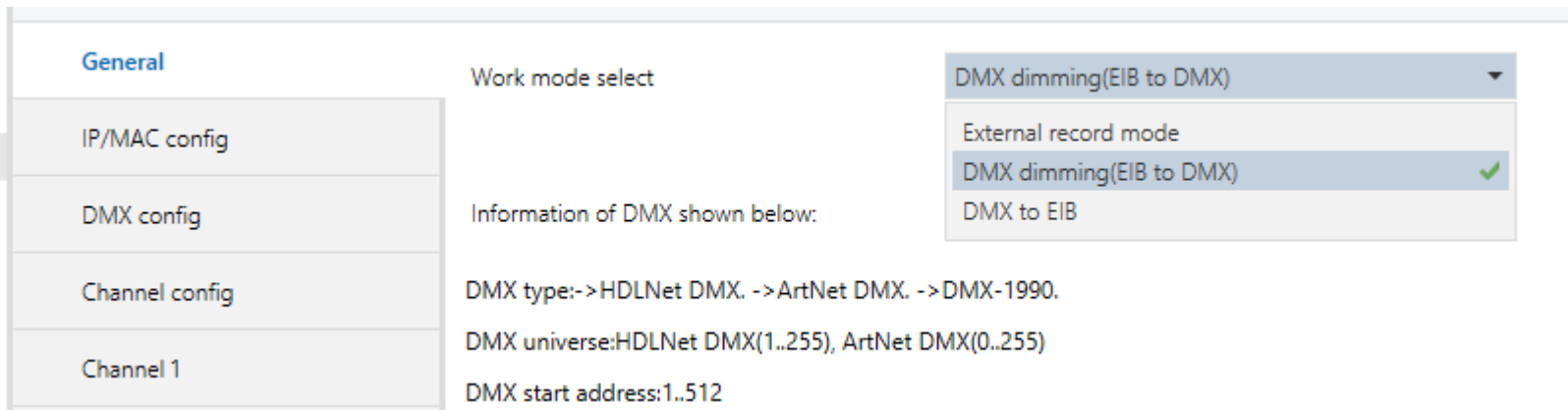


DMX512 Gateway

M/DMX512.1



It is not only a KNX/DMX gateway, but also can make record, play back and delete DMX program. The maximum record time is up to 4 hours. This module can be used to control devices with built-in DMX protocol, such as LED color changer, laser light, etc.



General

Work mode select

DMX dimming(EIB to DMX)

External record mode

DMX dimming(EIB to DMX) ✓

DMX to EIB

Information of DMX shown below:

DMX type:->HDLNet DMX. ->ArtNet DMX. ->DMX-1990.

DMX universe:HDLNet DMX(1..255), ArtNet DMX(0..255)

DMX start address:1..512

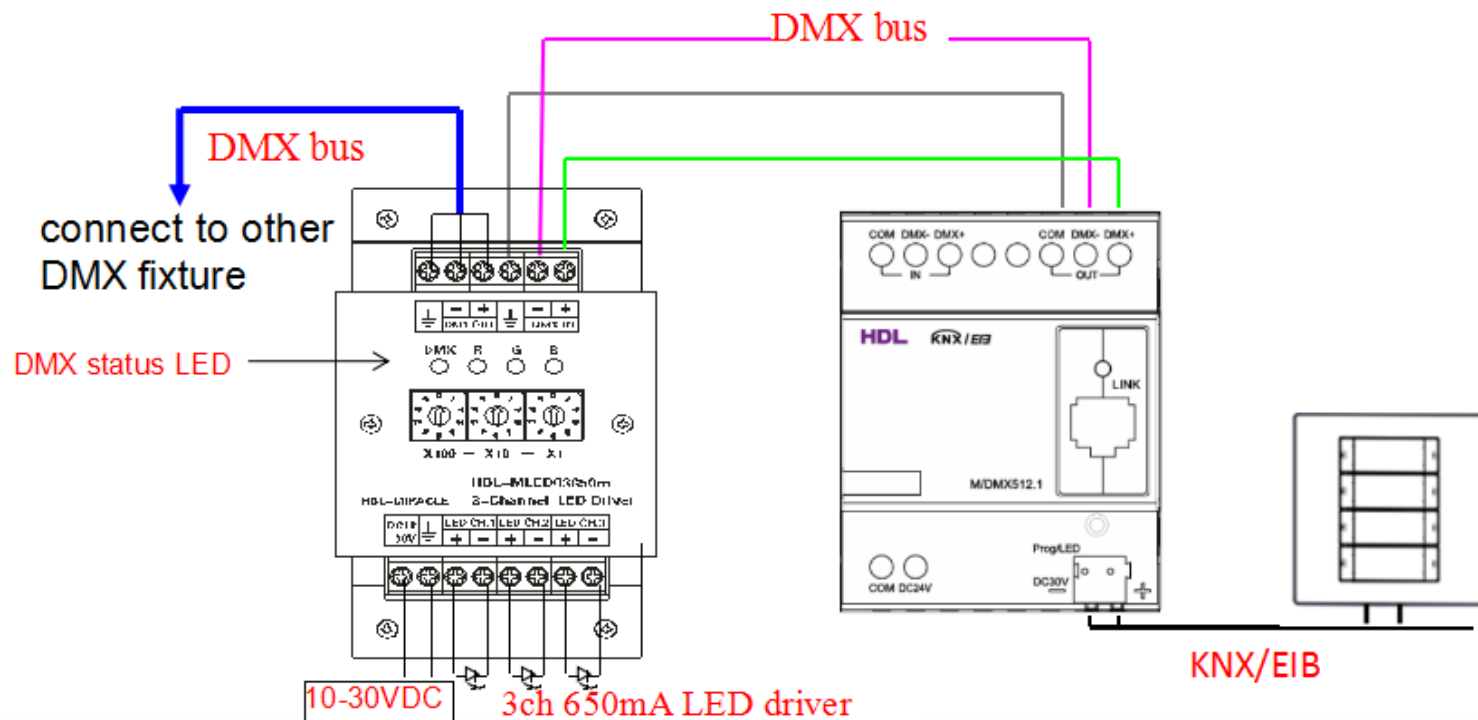
External record mode: work as a recorder, it can record some scenes, and then you can play the scenes by other devices after record.

DMX dimming(EIB to DMX): work as a dimmer, it can control channel, scene and sequence.

DMX to EIB: work as a converter, can control EIB devices(dimmer/relay) via the DMX signal

this file is talking about the DMX dimming mode, there are 48 channels totally.

Wiring Diagram



1.1.1 M/DMX512.1 > DMX config

General	>>DMX output type	DMX-1990
IP/MAC config	DMX output start address(1..512)	HDLNet DMX
DMX config		ArtNet DMX
Channel config	Change DMX output type via bus	DMX-1990 ✓
Channel 1		<input checked="" type="radio"/> Disable <input type="radio"/> Enable
	Change Net DMX output universe via bus	<input checked="" type="radio"/> Disable <input type="radio"/> Enable

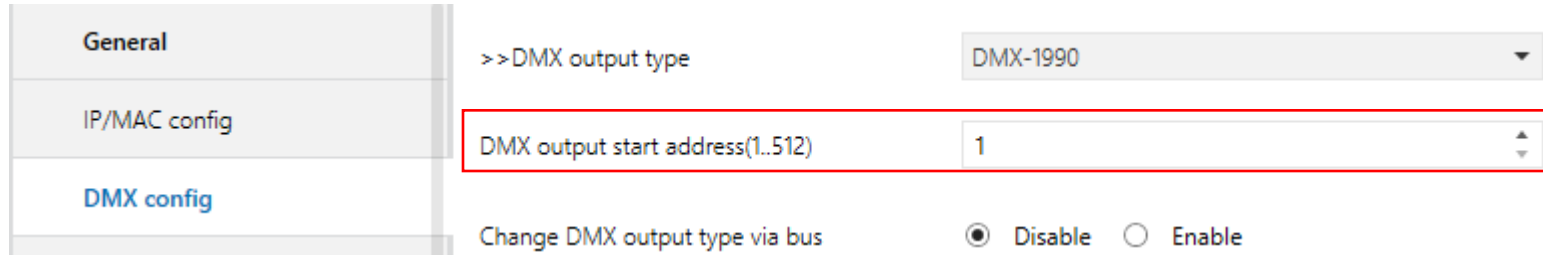
HDL Net DMX: it's belong to HDL protocol

ArtNet DMX: it's an Ethernet protocol based on the TCP/IP protocol

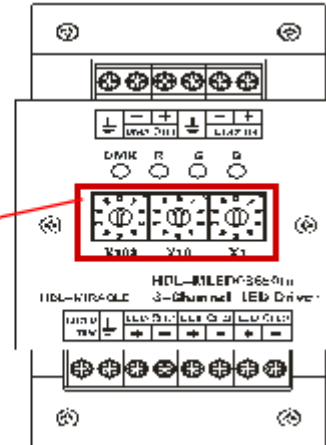
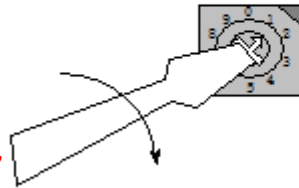
DMX-1990: standard DMX512 protocol

for the 'wiring diagram', the output type is 'DMX-1990'

DMX Output Start Address



Start channel(range001-512):
e.g., If you use screw driver to set the start channel as 001, then the rest two channels will be ch2 & ch3, so R channel=1, G channel=2, B channel=3.
if the start address is 004, then the R channel=4, G channel=5, B channel=6



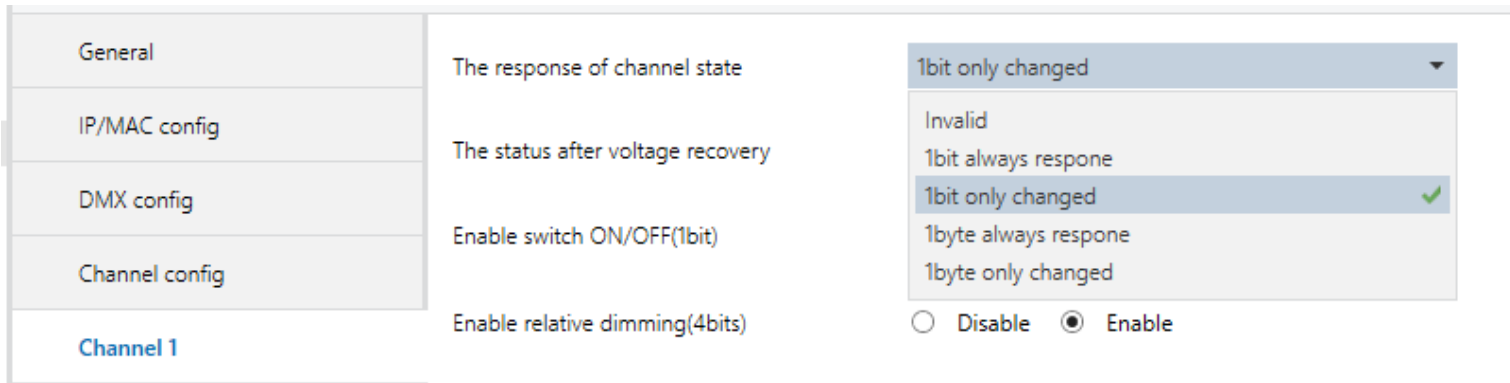
Special function: mainly for testing whether the device works or not

- 513 light R ON
- 514 light G ON
- 515 light B ON
- 516 lights R&G&B ON

General	Fade time for channel dimming([0%..100%]/ [0..255s])	5
IP/MAC config	Enable channel 1..8	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
DMX config	Enable channel 9..16	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Channel config		

Fade time:

For example, you set 3 seconds and turn it on by pressing a user panel, the load will turn on slowly and reach the max brightness 3 seconds later



General	The response of channel state	1bit only changed
IP/MAC config	The status after voltage recovery	Invalid
DMX config	Enable switch ON/OFF(1bit)	1bit always response
Channel config	Enable relative dimming(4bits)	1bit only changed ✓
Channel 1		1byte always response
		1byte only changed

Disable Enable

1bit:

normally use this object to feedback the channel state to the button, so the button indicator can show the correct state of it. if the channel brightness >0 , send out command '1'; if the brightness $=0$, send out command '0'.

1 byte:

normally use this object to feedback the channel specific brightness to the app, then the app can show the percentage value of its brightness.

Relative/Absolute Dimming

DMX config	Enable switch ON/OFF(1bit)	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable
Channel config			
Channel 1	Enable relative dimming(4bits)	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable
Channel 2	-Relative dimming saved as the brightness of switch	<input checked="" type="radio"/> NO	<input type="radio"/> YES
Channel 3	Enable absolute dimming(1byte)	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable
Channel 4	-Absolute dimming saved as the brightness of switch	<input checked="" type="radio"/> NO	<input type="radio"/> YES

Relative dimming:

long pressing the button to dim up/down, adjust the brightness visually.

Absolute dimming:

The channel will output a certain brightness when receives a percentage telegram

Channel 6	Fade time for scene channel dimming ([0%..100%]/[0..255s])	3
Channel 7	Channel 1 brightness	50%(128)
Channel 8	Channel 2 brightness	80%
Scene config	Channel 3 brightness	10%
Scene NO.1		

Scene: the combination of several channels' status (on/off or different brightness levels.)

This DMX512 gateway supports 24 scenes totally, set the channels' brightness to make the RGB Strip showing different color.

Scene NO.3	Total 24 steps,configuration as following:	
Scene NO.4	>>Step 1 configuration	Scene NO.01
Scene NO.5	Time for step 1 (0..65535s)	5
Scene NO.6	Time for step 1 (0..999ms)	0
Sequence config	>>Step 2 configuration	Scene NO.02
Sequence 1	Time for step 2 (0..65535s)	5

Sequence: the combination of difference scenes with playing parameters.

one sequence can have up to 24 steps, one step can call one scene, set the step running time, when this time elapses, will turn to next step.

on/off control & relative dimming:

Channel config

Enable switch ON/OFF(1bit) Disable Enable

Enable relative dimming(4bits) Disable Enable

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U
30	Channel 1	Switching(1bit)	DMX CH1	5/0/1	1 bit	C	-	W	-	U
31	Channel 1	Relative dimming(4bits)	DMX CH1 Dimming	6/0/1	4 bit	C	-	W	-	U
32	Channel 1	Absolute dimming(1byte)			1 byte	C	-	W	-	U
33	Channel 1	Response state(1bit)	DMX CH1 Feedback	7/0/1	1 bit	C	R	-	T	-

on/off(switch): 1 bit data point, here we assign group address 5/0/1

response state: 7/0/1 for status feedback

relative dimming: it is enabled by default, 4 bit data point, here we assign group address 6/0/1

1.1.7 DLP Panel M/DLP04.1 > Rocker A

General1	Rocker A work mode	<input checked="" type="radio"/> Independent button mode <input type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker A : left button operation mode	Dimming controller
Rocker A	->Reaction on left short button	Toggle
Rocker B	->Reaction on left long button	Dim->Brighter/Darker

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U
40	Rocker A left short	Switching	DMX CH1	5/0/1	1 bit	C	-	W	T	U
41	Rocker A left long	Dimming	DMX CH1 Dimming	6/0/1	4 bit	C	-	W	T	U

In the panel setting page, select the 'Dimming controller' as the work mode.
assign the switch and feedback address of dimmer for Rocker A left button switching function,
assign the relative dimming address of dimmer for Rocker A left button dimming function
short press the button, for on/off control; long press the button, for dim up/down control.

absolute dimming:

Channel 1	Enable relative dimming(4bits)	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable
Channel 2	-Relative dimming saved as the brightness of switch	<input checked="" type="radio"/> NO	<input type="radio"/> YES
Channel 3	Enable absolute dimming(1byte)	<input type="radio"/> Disable	<input checked="" type="radio"/> Enable

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U
30	Channel 1	Switching(1bit)	DMX CH1	5/0/1	1 bit	C	-	W	-	U
31	Channel 1	Relative dimming(4bits)	DMX CH1 Dimming	6/0/1	4 bit	C	-	W	-	U
32	Channel 1	Absolute dimming(1byte)	DMX CH1 Percentage	6/0/2	1 byte	C	-	W	-	U
33	Channel 1	Response state(1bit)	DMX CH1 Feedback	7/0/1	1 bit	C	R	-	T	-

absolute dimming: it's enabled by default, it's 1 byte data point, here we assign group address 6/0/ for channel1

1.1.7 DLP Panel M/DLP04.1 > Rocker B

General1	Rocker B work mode	<input checked="" type="radio"/> Independent button mode <input type="radio"/> Combined button mode
General2	=====	=====
Functions		
Rocker A		
Rocker B	Rocker B : left button operation mode	Percentage controller
	->Percentage on left short button	100%(255)
	->Percentage on left long button	0%(0)
	--Delay on left short button(0..255s)	0
	--Delay on left long button(0..255s)	0
	Long button time after	1s
	-----	-----
	LED status source	Local
	--LED status	ON/OFF status
	=====	=====
	Rocker B : right button operation mode	Percentage controller
	->Percentage on right short button	80%
	->Percentage on right long button	50%(128)

In the panel setting page, select the 'Percentage controller' as the work mode for rocker B.
set the favorite brightness for each button's short/long press operation

	Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U	
	40	Rocker A left short	Switching	DMX CH1	5/0/1	1 bit	C	-	-	W	T	U
	41	Rocker A left long	Dimming	DMX CH1 Dimming	6/0/1	4 bit	C	-	-	W	T	U
	45	Rocker A right short	Switching			1 bit	C	-	-	W	T	U
	46	Rocker A right long	Switching			1 bit	C	-	-	W	T	U
	50	Rocker B left	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	-	W	T	U
	55	Rocker B right	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	-	W	T	U

assign the same group address of channel1 absolute dimming object for Rocker B, then can use Rocker B to control channel1:

short press rocker B right button, channel1 will output 80%;

long press rocker B right button, channel1 will output 50%.

Scene 1:

Set the channels' brightness for Scene1, e.g. channel1 is 30%, channel 2 is 60%, channel 3 is 0%;

1.1.5 M/DMX512.1 > Scene NO.1

General	Fade time for scene channel dimming ([0%..100%]/[0..255s])	3
IP/MAC config	Channel 1 brightness	30%
DMX config	Channel 2 brightness	60%
Channel config	Channel 3 brightness	0%(0)
Scene config	Channel 4 brightness	Invalid
	Channel 5 brightness	Invalid
Scene NO.1	Channel 6 brightness	Invalid

Scene 2:

Set the channels' brightness for Scene2, e.g. channel1 is 50%, channel2 is 80%, channel3 is 0%;

1.1.5 M/DMX512.1 > Scene NO.2

General	Fade time for scene channel dimming ([0%..100%]/[0..255s])	3
IP/MAC config	Channel 1 brightness	50%(128)
DMX config	Channel 2 brightness	80%
Channel config	Channel 3 brightness	0%(0)
Scene config	Channel 4 brightness	Invalid
Scene NO.1	Channel 5 brightness	Invalid
Scene NO.2	Channel 6 brightness	Invalid
	Channel 7 brightness	Invalid

same steps for other scenes

52	Channel 6	Absolute dimming(1byte)		1 byte	C	-	W	-	
54	Channel 7	Switching(1bit)		1 bit	C	-	W	-	
55	Channel 7	Relative dimming(4bits)		4 bit	C	-	W	-	
56	Channel 7	Absolute dimming(1byte)		1 byte	C	-	W	-	
58	Channel 8	Switching(1bit)		1 bit	C	-	W	-	
59	Channel 8	Relative dimming(4bits)		4 bit	C	-	W	-	
60	Channel 8	Absolute dimming(1byte)		1 byte	C	-	W	-	
230	Scene	Call scene(8bit)	DMX Scene	8/0/1	1 byte	C	-	W	-

here we assign group address 8/0/1 for scene object

1.1.7 DLP Panel M/DLP04.1 > Rocker C

General1	Rocker C work mode	<input type="radio"/> Independent button mode <input checked="" type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker C : operation mode	Scene controller
Rocker A	Call scene number of the left	Scene NO.01
Rocker B	Call scene number of the right	Scene NO.02
Rocker C	Long button operation as	Invalid

Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U
40	Rocker A left short	Switching	DMX CH1	5/0/1	1 bit	C	-	W	T	U
41	Rocker A left long	Dimming	DMX CH1 Dimming	6/0/1	4 bit	C	-	W	T	U
45	Rocker A right short	Switching			1 bit	C	-	W	T	U
46	Rocker A right long	Switching			1 bit	C	-	W	T	U
50	Rocker B left	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	W	T	U
55	Rocker B right	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	W	T	U
60	Rocker C short	Call scene	DMX Scene	8/0/1	1 byte	C	-	W	T	U

In the panel setting page, select the 'Scene controller' as the work mode.

press rocker D left button to call scene1, channel 1 will go to 30%, channel 2 will go to 60%, etc;

press right button to call scene2, channel 1 will go to 50%, channel 2 will go to 80%, etc.

1.1.5 M/DMX512.1 > Sequence 1		
Channel 3	>>Step 1 configuration	Scene NO.01
	Time for step 1 (0..65535s)	5
Channel 4	Time for step 1 (0..999ms)	0
Channel 5	>>Step 2 configuration	Scene NO.02
Channel 6	Time for step 2 (0..65535s)	5
Channel 7	Time for step 2 (0..999ms)	0
Channel 8	>>Step 3 configuration	Scene NO.03
Scene config	Time for step 3 (0..65535s)	5
	Time for step 3 (0..999ms)	0
Scene NO.1	>>Step 4 configuration	Invalid
Scene NO.2	Time for step 4 (0..65535s)	5
Scene NO.3	Time for step 4 (0..999ms)	0
Scene NO.4	>>Step 5 configuration	Invalid
Scene NO.5	Time for step 5 (0..65535s)	5
Scene NO.6	Time for step 5 (0..999ms)	0
Sequence config	>>Step 6 configuration	Invalid
	Time for step 6 (0..65535s)	5
	Time for step 6 (0..999ms)	0
Sequence 1	>>Step 7 configuration	Invalid

set to call one scene for each step,
e.g. step1 call scene1, step2 call
scene2, step3 call scene3.
set the step running time, here is 5s.
control mode is forward, running
mode is cycle, when running the
sequence, it will execute: step1-
>step2-step3->step1->step2->...

1.1.7 DLP Panel M/DLP04.1 > Rocker D

General1	Rocker D work mode	<input checked="" type="radio"/> Independent button mode <input type="radio"/> Combined button mode
General2	=====	=====
Functions	Rocker D : left button operation mode	Sequence controller
Rocker A	-> Reaction on left short button	Toggle(Start-"1"-,Stop-"0")
Rocker B	-> Reaction on left long button	Invalid
Rocker C	Long button time after	1s
	-----	-----
Rocker D	LED status source	Local
	--LED status	ON/OFF status
	=====	=====
	Rocker D : right button operation mode	Sequence controller
	-> Reaction on right short button	Toggle(Start-"1"-,Stop-"0")
	-> Reaction on right long button	Invalid
	Long button time after	1s
	-----	-----
	LED status source	Local
	--LED status	ON/OFF status

Group Objects / Parameter

In the panel setting page, select the 'Sequence controller' as the work mode. assign the same group address for sequence object in dimmer and button E.

load | Info | Reset | Unload | Print

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Number	Name	Object Function	Description	Group Address	Length	C	R	W	T	U
40	Rocker A left short	Switching	DMX CH1	5/0/1	1 bit	C	-	W	T	U
41	Rocker A left long	Dimming	DMX CH1 Dimming	6/0/1	4 bit	C	-	W	T	U
45	Rocker A right short	Switching			1 bit	C	-	W	T	U
46	Rocker A right long	Switching			1 bit	C	-	W	T	U
50	Rocker B left	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	W	T	U
55	Rocker B right	Percentage	DMX CH1 Percentage	6/0/2	1 byte	C	-	W	T	U
60	Rocker C short	Call scene	DMX Scene	8/0/1	1 byte	C	-	W	T	U
70	Rocker D left short	Sequence	DMX Sequence	8/0/2	1 bit	C	-	W	T	U
71	Rocker D left long	Sequence			1 bit	C	-	W	T	U
75	Rocker D right short	Sequence	DMX Sequence	8/0/2	1 bit	C	-	W	T	U
76	Rocker D right long	Sequence			1 bit	C	-	W	T	U

The background of the image is a photograph of a modern building with a complex, angular glass facade. The building is partially obscured by a semi-transparent purple overlay. A street lamp is visible in the foreground at the bottom center. The overall color scheme is dominated by purple and white.

THANKS