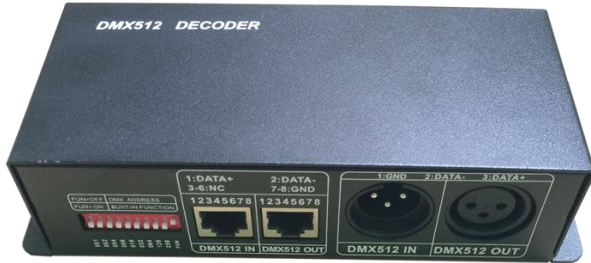


# LED Controller - DMX Decoder

3CH PWM DMX LED Decoder, 3CH SPI DMX LED Decoder



## Feature:

3PWM / SPI led decoder

Input RJ45 & XLR 3 pin male, output RJ45 & XLR 3 pin female

0-100% dimming-PWM DMX, 1024 gray level-SPI DMX, 500Hz frequency

Each 20 pcs DMX Decoder need a DMX signal amplifier

Protections: short circuit, over current , over temperature .

Application: adapted for all kinds of led lighting control by PWM DMX/ SPI DMX protocol

## PRODUCT SPECIFICATION:

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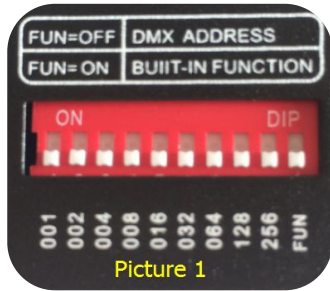
Model	LED-D3PWM	LED-D3SPI
Input Voltage	DC5V or DC 6-24V	DC5V or DC 6-24V
Control	3CH x 4A	170 pixels max
Working Temperature	-20C°--75C°	-20C°--75C°
Protection	IP40	IP40
Dimension	L165 x W67 x H42mm	L165 x W67 x H42mm
Net Weight	0.8kg	0.8kg

Details

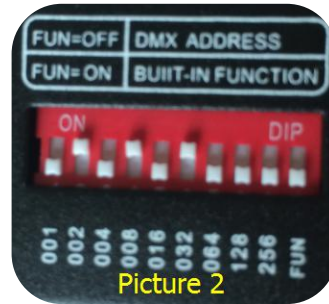
## Control Details

### 3 PWM DMX Decoder

**Connection notes,** Max Each 20 pcs DMX PWM LED Decoder need a dmX signal amplifier  
**DIP switch,** FUN = OFF (the 10th switch) setting the dmX address for the dmX decoder,  
 each decoder occupy 3 dmX address,  
 FUN = ON (the 10th switch) you can test the led lamp with built-in program



picture 1, the start dmX address is 1,  
 decoder address 1, 2, 3,



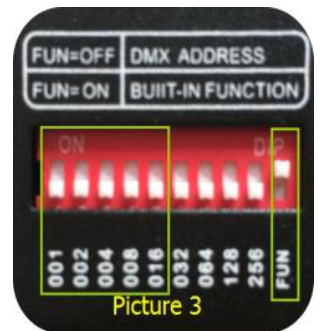
picture 2, the start dmX address 43,  
 decoder address 43, 44, 45.

For more dmX address setting table please go check the following DMX PWM LED Decoder Address Setting Table of this user manual

### SPI DMX Decoder

**Connection notes,** Each decoder control max 170 pixel, CH1 for Data, CH2 for CLK, CH3 for GND

**DIP Switch,** FUN = ON (the 10th switch) you can use the first 1<sup>st</sup>- 5<sup>th</sup> (see as picture 3)  
 to set the start dmX address for the dmX decoder,  
 DMX address gap is 8 pixel ( not channel)  
 so you can set the start dmX address of 1, 9, 17, 25, 33, 41, ....  
 and 6<sup>th</sup> - 9<sup>th</sup> to define the DMX IC driver mode, as follows,



DIP Switch position of the 6 <sup>th</sup> -9 <sup>th</sup>	LED Drive IC(Set the IC driver mode according to your led lamp's IC driver)
	LPD6803, UCS6909, UCS6912, APA101, D705
	LPD8806
	WS2801
	P9813
	TM1812, TM1809, TM1804, UCS1903, UCS1909, UCS1912, WS2811, INK1003
	LPD1882, LPD1889

For more details please check the following DMX IIC LED Decoder Address Setting Table of this user manual

DMX Address Setting Table 1(PWM) & Table 2(SPI):



**DMX PWM LED Decoder Address Setting Table**

DIP Switch position of the 1<sup>st</sup>-9<sup>th</sup>

**Table 1**

DIP SWITCH 123456789	DMX ADDR NUMBER	DIP SWITCH 123456789	DMX ADDR NUMBER	DIP SWITCH 123456789	DMX ADDR NUMBER	DIP SWITCH 123456789	DMX ADDR NUMBER
00000000	1	110101000	44	011010100	87	100000010	130
10000000	2	001101000	45	111010100	88	010000010	131
01000000	3	101101000	46	000110100	89	110000010	132
11000000	4	011101000	47	100110100	90	001000010	133
00100000	5	111101000	48	010110100	91	101000010	134
10100000	6	000011000	49	110110100	92	011000010	135
01100000	7	100011000	50	001110100	93	111000010	136
11100000	8	010011000	51	101110100	94	000100010	137
00010000	9	110011000	52	011110100	95	100100010	138
10010000	10	001011000	53	111110100	96	010100010	139
01010000	11	101011000	54	000001100	97	110100010	140
11010000	12	011011000	55	100001100	98	001100010	141
00110000	13	111011000	56	010001100	99	101100010	142
10110000	14	000111000	57	110001100	100	011100010	143
01110000	15	100111000	58	001001100	101	111100010	144
11110000	16	010111000	59	101001100	102	000010010	145
00001000	17	110111000	60	011001100	103	100010010	146
10001000	18	001111000	61	111001100	104	010010010	147
01001000	19	101111000	62	000101100	105	110010010	148
11001000	20	011111000	63	100101100	106	001010010	149
00101000	21	111111000	64	010101100	107	101010010	150
10101000	22	000000100	65	110101100	108	011010010	151
01101000	23	100000100	66	001101100	109	111010010	152
11101000	24	010000100	67	101101100	110	000110010	153
00011000	25	110000100	68	011101100	111	100110010	154
10011000	26	001000100	69	111101100	112	010110010	155
01011000	27	101000100	70	000011100	113	110110010	156
11011000	28	011000100	71	100011100	114	001110010	157
00111000	29	111000100	72	010011100	115	101110010	158
10111000	30	000100100	73	110011100	116	011110010	159
01111000	31	100100100	74	001011100	117	111110010	160
11111000	32	010100100	75	101011100	118	000001010	161
00000100	33	110100100	76	011011100	119	100001010	162
10000100	34	001100100	77	111011100	120	010001010	163
01000100	35	101100100	78	000111100	121	110001010	164
11000100	36	011100100	79	100111100	122	001001010	165
00100100	37	111100100	80	010111100	123	101001010	166
10100100	38	000010100	81	110111100	124	011001010	167
01100100	39	100010100	82	001111100	125	111001010	168
11100100	40	010010100	83	101111100	126	000101010	169
00010100	41	110010100	84	011111100	127	100101010	170
10010100	42	001010100	85	111111100	128	010101010	171
01010100	43	101010100	86	000000010	129	110101010	172

Wiring Diagram

Accessories

DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR
123456789	NUMBER	123456789	NUMBER	123456789	NUMBER	123456789	NUMBER
001101010	173	010001110	227	000110001	281	111100101	336
101101010	174	110001110	228	100110001	282	000010101	337
011101010	175	001001110	229	010110001	283	100010101	338
111101010	176	101001110	230	110110001	284	010010101	339
000011010	177	011001110	231	001110001	285	110010101	340
100011010	178	111001110	232	101110001	286	001010101	341
010011010	179	000101110	233	011110001	287	101010101	342
110011010	180	100101110	234	111110001	288	011010101	343
001011010	181	010101110	235	000001001	289	111010101	344
101011010	182	110101110	236	100001001	290	000110101	345
011011010	183	001101110	237	010001001	291	100110101	346
111011010	184	101101110	238	110001001	292	010110101	347
000111010	185	011101110	239	001001001	293	110110101	348
100111010	186	111101110	240	101001001	294	001110101	349
010111010	187	000011110	241	011001001	295	101110101	350
110111010	188	100011110	242	111001001	296	011110101	351
001111010	189	010011110	243	000101001	297	111110101	352
101111010	190	110011110	244	100101001	298	000001101	353
011111010	191	001011110	245	010101001	299	100001101	354
111111010	192	101011110	246	110101001	300	010001101	355
000000110	193	011011110	247	001101001	301	110001101	356
100000110	194	111011110	248	101101001	302	001001101	357
010000110	195	000111110	249	011101001	303	101001101	358
110000110	196	100111110	250	111101001	304	011001101	359
001000110	197	010111110	251	000011001	305	111001101	360
101000110	198	110111110	252	100011001	306	000101101	361
011000110	199	001111110	253	010011001	307	100101101	362
111000110	200	101111110	254	110011001	308	010101101	363
000100110	201	011111110	255	001011001	309	110101101	364
100100110	202	111111110	256	101011001	310	001101101	365
010100110	203	000000001	257	011011001	311	101101101	366
110100110	204	100000001	258	111011001	312	011101101	367
001100110	205	010000001	259	000111001	313	111101101	368
101100110	206	110000001	260	100111001	314	000011101	369
011100110	207	001000001	261	010111001	315	100011101	370
111100110	208	101000001	262	110111001	316	010011101	371
000010110	209	011000001	263	001111001	317	110011101	372
100010110	210	111000001	264	101111001	318	001011101	373
010010110	211	000100001	265	111111001	320	101011101	374
110010110	212	100100001	266	000000101	321	011011101	375
001010110	213	010100001	267	100000101	322	111011101	376
101010110	214	110100001	268	010000101	323	000111101	377
011010110	215	001100001	269	110000101	324	100111101	378
111010110	216	101100001	270	001000101	325	010111101	379
000110110	217	011100001	271	101000101	326	110111101	380
100110110	218	111100001	272	011000101	327	001111101	381
010110110	219	000010001	273	111000101	328	101111101	382
110110110	220	100010001	274	000100101	329	011111101	383
001110110	221	010010001	275	100100101	330	111111101	384
101110110	222	110010001	276	010100101	331	000000011	385
011110110	223	001010001	277	110100101	332	100000011	386
111110110	224	101010001	278	001100101	333	010000011	387
000001110	225	011010001	279	101100101	334	110000011	388
100001110	226	111010001	280	011100101	335	001000011	389

DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR	DIP SWITCH	DMX ADDR
123456789	NUMBER	123456789	NUMBER	123456789	NUMBER	123456789	NUMBER
101000011	390	111110011	416	000111011	441	100010111	466
011000011	391	000001011	417	100111011	442	010010111	467
111000011	392	100001011	418	010111011	443	110010111	468
000100011	393	010001011	419	110111011	444	001010111	469
100100011	394	110001011	420	001111011	445	101010111	470
010100011	395	001001011	421	101111011	446	011010111	471
110100011	396	101001011	422	011111011	447	111010111	472
001100011	397	011001011	423	111111011	448	000110111	473
101100011	398	111001011	424	000000111	449	100110111	474
011100011	399	000101011	425	100000111	450	010110111	475
111100011	400	100101011	426	010000111	451	110110111	476
000010011	401	010101011	427	110000111	452	001110111	477
100010011	402	110101011	428	001000111	453	101110111	478
010010011	403	001101011	429	101000111	454	011110111	479
110010011	404	101101011	430	011000111	455	111110111	480
001010011	405	011101011	431	111000111	456	000001111	481
101010011	406	111101011	432	000100111	457	100001111	482
011010011	407	000011011	433	100100111	458	010001111	483
111010011	408	100011011	434	010100111	459	110001111	484
000110011	409	110011011	436	110100111	460	001001111	485
100110011	410	001011011	437	001100111	461	101001111	486
010110011	411	101011011	438	101100111	462	011001111	487
110110011	412	011011011	439	011100111	463	111001111	488
001110011	413	011011011	439	111100111	464	000101111	489
101110011	414	111011011	440	000010111	465	100101111	490

**SPI DMX LED Decoder Address Setting TableTable 2**

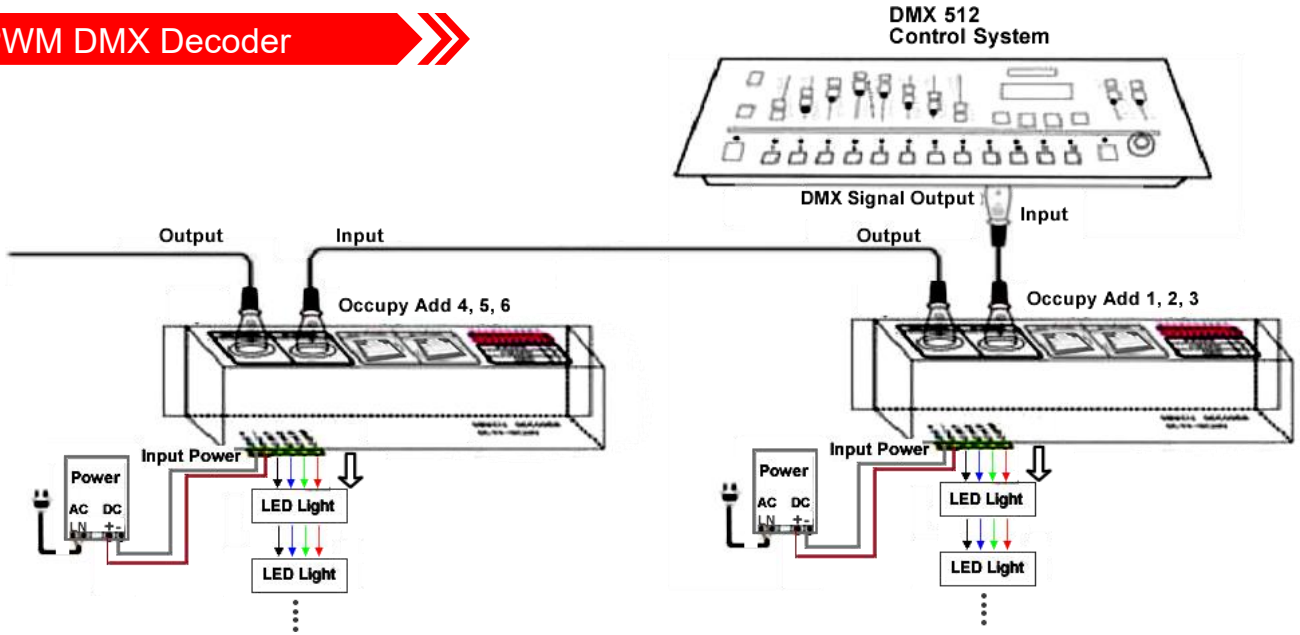
DIP Switch position of the 1 <sup>st</sup> -5 <sup>th</sup>	DMX ADDR	DIP Switch position of the 1 <sup>st</sup> -5 <sup>th</sup>	DMX ADDR
12345	NUMBER	12345	NUMBER
00000	1	11010	89
10000	9	00110	97
01000	17	10110	105
11000	25	01110	113
00100	33	11110	121
10100	41	00001	129
01100	49	10001	137
11100	57	01001	145
00010	65	11001	153
10010	73	00101	161
01010	81	10101	169



## 3PWM DMX Decoder

Wiring

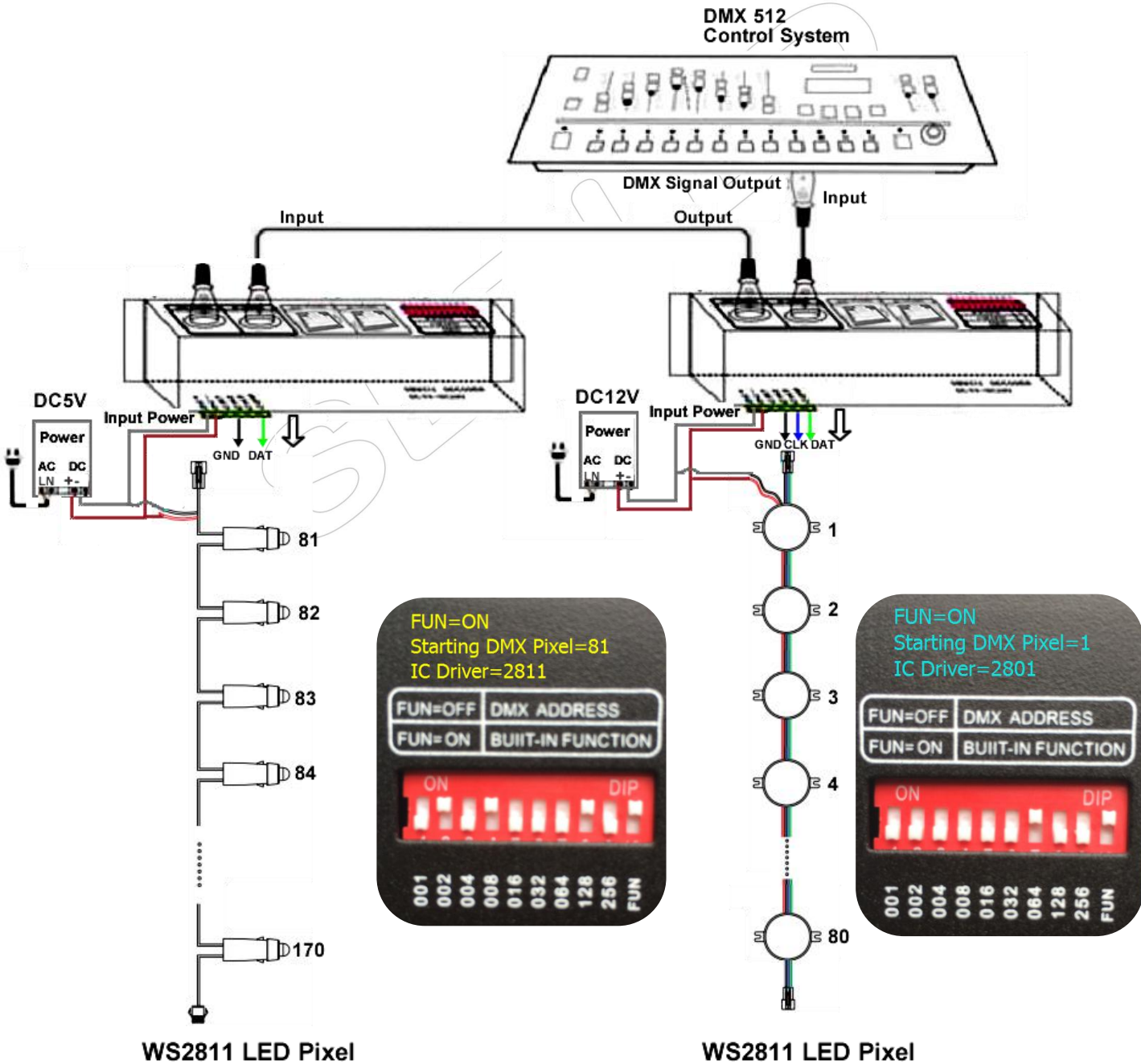
Diagram



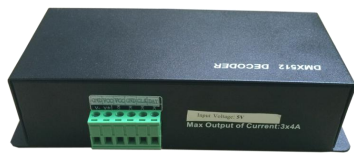
## SPI DMX Decoder

Wiring

Diagram



Accessories

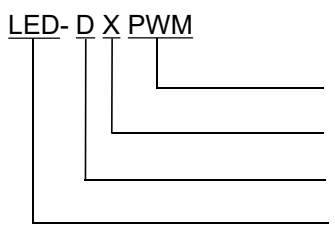


DMX Decoder



XLR connector

Model Definition



PWM=PWM dimming  
X=3, X=4, X=6, X=24 means 3/4/6/24 DMX channel, X=SPI  
D=DMX  
LED=ISEELED

