

4016 QUADPUCK[™] 4-Channel DMX Driver Interface

PRODUCT OVERVIEW

The 4016 QuadPuck DMX Driver Interface from LuxDrive offers the best in flexibility and compatibility for controlling LEDs. Up to (4) LuxDrive LED Power Modules* can be individually controlled using a standard USITT DMX/512/1990 controller, providing a simple, low cost solution for powering and controlling LEDs, all in one compact unit.

The QuadPuck DMX Driver Interface is available with a number of options and features, providing even greater flexibility, and is small enough to be easily incorporated in LED lighting units or placed in wall-mount boxes or remotely located units.



The 4016 QuadPuck LED Driver Interface with (4) 3021-D-E-0700 BuckPuck Drivers (drivers sold separately).

TYPICAL APPLICATIONS

Area lighting & control systems

Architectural lighting systems

Computer control interface

Landscape lighting control

RGB fixtures & systems

Accent lighting control

Powering & controlling Luxeon LED arrays

Theatrical & production lighting systems

FEATURES

- ✓ On-Board selectable DMX addressing
- ✓ One to four control channel capability
- Interchangeable BuckPuck capability*
- Channel activity indicators (LED)
- ✓ USITT DMX/512/1990 Compatible
- ✓ Simple RJ45 connections for DMX & power*
- ✓ DMX transmission error indicators
- Loop-through for DMX & power
- ✓ Selectable POST tests (Power-On-Self-Test)
- ✓ Optional terminal blocks for power & outputs
- ✓ Small size (4" x 2.5" x 1")

Specifications

Input Voltage	8-32VDC
Input Current (Power)	Up to 4.5A*
Output Current (per CH.)	140-1100 mA*
LED Count (Max.)	72 Luxeon I LEDs*
Communication	DMX512 RS-485@250kbps



Luxeon 12-Ring Power In DMX Loop Example: 4016 QuadPuck powering (4) Luxeon™ 12-Rings from 24VDC using (4) 03021-D-E-700 BuckPucks. DMX Controller or PC



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Specifications

Electrical Specifications	
Input Voltage	8-32 VDC
Input Current (control section)	20-30 mA
Input Current (power section)	Up to 4.5A*
Output Current (perch.)	140-1100mA*
Max. LED Count (total)	72 LuxeonTM ILEDs*
Dimmer Type	PWM
Dimmer Steps	256
PWM Frequency	600Hz
PWM Jitter	<100ns
PWM Step Size	6.4µs
Data Termination	110W , Jumper Selectable

Mechanical Specifications	
Size	4.0" x 2.5" x 0.675"
Mounting	(4) 0.156" holes
Weight	3.0oz(86gm)

Communications

DMX512



Connections

- 1 Power Input (2)
- 2 LED Channel Output (4)
- 3 Power (Green) / Error (Red) Indicators
- 4 0.156" Mounting Holes (4)
- **5** 3021 Module Mounting Location (4)
- 6 3021 Hard or Socket* Mount
- 7 3021 "I" Model Trim-Pot Access
- 8 Channel Activity Indicators (4)
- 9 Rotary Switches (4)
- 10 Program Button
- 11 Terminator Jumper
- 12 DMX Input/Loop via. RJ45 Conn. (2)*



* - See application guide for additional information.

RS-485@250kbps



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Connections (continued...)

Desig	Туре	Name	Pin(s)	Name
J1, J2	RJ45	DMX512 signal	1	DMX+
			2	DMX-
			3,4,5	Power (see JU1,2)
			6,7,8	Ground
J4,J5	Header or bare pads	DMX512 signal	1	DMX+
			2	DMX-
			3	Ground
TB1,	Term. Block	Power, Ground	1	Ground
TB2,			2	Power
ТВЗ,	Term. Block	LED array	1	LED+
ТВ4,			2	LED-
ТВ5,				
ТВ6,				

Jumpers

Desig	Name
JU3	Terminator DMX512
JU1	RJ45 Power pass-through for J1
JU2	RJ45 Power pass-through for J2

Indicators

Desig	Name			
D5, D6	Red ERROR Green POWER			
D7	Channel 0 demonstration			
D8	Channel 1 demonstration			
D9	Channel 2 demonstration			
D10	Channel 3 demonstration			

Switches

Desig	Name	
PB1	Reset switch	
SW3	100s digit, DMX Address/Configuration parameter	
SW2	10s digit, DMX Address/Configuration parameter	
SW1	1s digit, DMX Address/Configuration parameter	



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Configuration

The QuadPuck is configured with three BCD switches. Switches should only be changed with the power off, except in the case of the two test modes 90x and 99x where SW1 can be changed with power applied. Configuration parameters are loaded into memory only at power-on. Each time a configuration parameter is changed and power is reapplied, the error and power lights flash quicky three times to signify that the new parameters have been permanently stored within the device. Invalid switch settings cause the error indicator to flash twice slowly and then the device uses the internally stored last-used parameters. The factory device defaults are set to DMX address 1 (one), fade rate 3 (three) and no Power-On Self Test (POST).

SW3	SW2	SW1	Func	tion			
					antia noveme de		lue
0	0	0	INO CI	nange. Address and co	onfig params de	fault to stored va	liue
0	0	1					
through							
5	0	8		MX address			
6	0	Х	Set fa	ade rate to $x. 0 = off, 9$	= slowest		
6	1	х	Set P	ower-On Self Test (PC	ST) parameters		
			х	POST condition			
			0	No POST			
			1	test patten			
			2	DMX signal check	(flash Ch0 if no	DMX detected)	
			3	3 test pattern + DMX signal check			
			4-9	unused			
9	0	х	Test	fade rate, x = rate. 0 =	off, 9 = slowest		
9	9	Х	Test	light channels			
			х	Chan0	Chan1	Chan2	Chan3
			0	off	off	off	off
			1	on	off	off	off
			2	off	on	off	off
			3	off	off	on	off
			4	off	off	off	on
			5	on	on	on	on*
			6	off	off	off	off
			7	off	off	off	off
9	9	8					
			Pre-Programmed Demo - Slow fade between channels 0,1,2				
9	9	9	KIIOC	olor Demo (Reserved)			