

Product Overview

The 4016 QuadPuck DMX Driver Interface from LuxDrive offers the ultimate 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.



Features

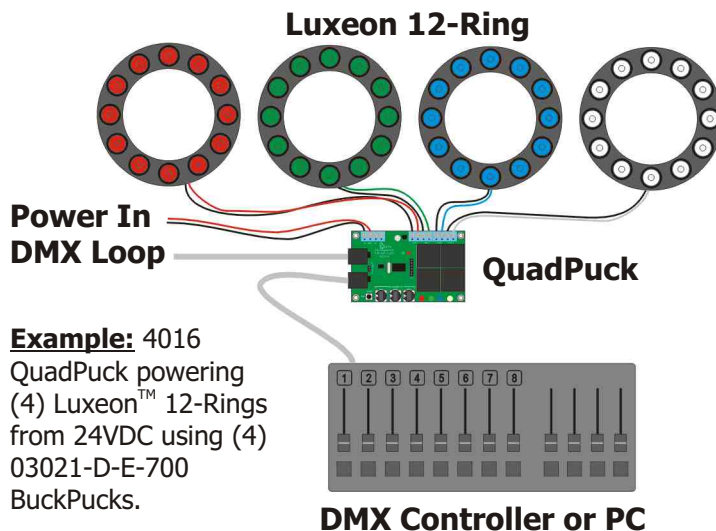
- On-Board selectable DMX addressing
- One to four control channel capability
- Interchangeable BuckPuck capability*
- Channel activity indicators (LED)
- USITT DMX/512/1990 Compatible
- Simple RJ45 connections for DMX & power*
- DMX transmission error indicators
- Loop-through for DMX & power
- Selectable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

Specifications

Input Voltage 8-32 VDC
 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

Typical Applications

- Powering & controlling Luxeon LED arrays
- Area lighting & control systems
- Architectural lighting systems
- Theatrical & production lighting systems
- RGB fixtures & systems
- Computer control interface
- Accent lighting control
- Landscape lighting control



* - See application guide for additional information.

Specifications

Electrical Specifications

Input Voltage 8-32 VDC
Input Current (control section). 20-30 mA
Input Current (power section) Up to 4.5A*

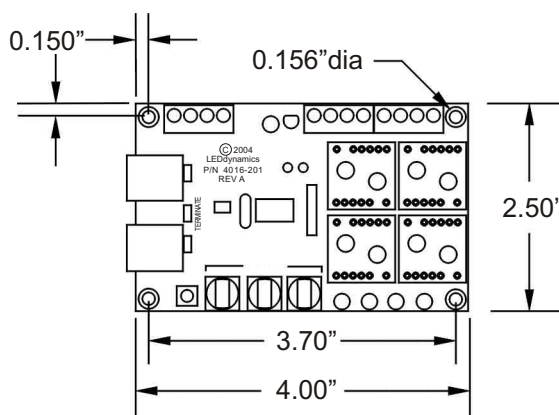
Output Current (per ch.) 140-1100mA*
Max. LED Count (total) 72 Luxeon™ I LEDs*

Dimmer Type. PWM
Dimmer Steps 256
PWM Frequency. 600Hz
PWM Jitter. <100ns
PWM Step Size 6.4μs

Data Termination. 110 , Jumper Selectable

Mechanical Specifications

Size 4.0"x2.5"x0.675"
Mounting (4) 0.156"dia holes
Weight 3.0oz (86gm)

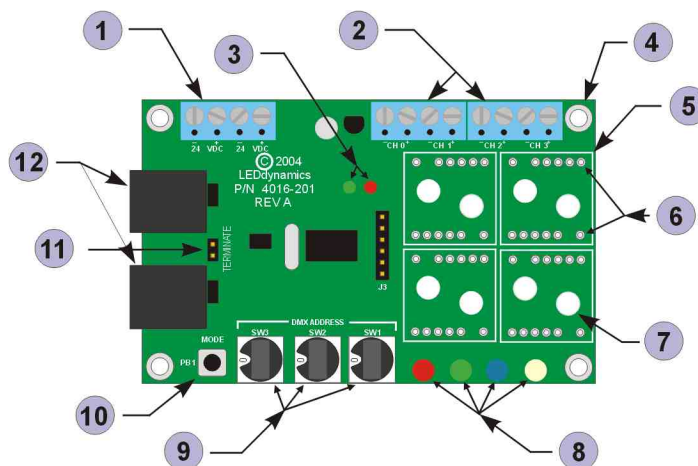


Communications

DMX512 RS-485@250kbps

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.

Connections (continued...)

<u>Desig</u>	<u>Type</u>	<u>Name</u>	<u>Pin(s)</u>	<u>Name</u>
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, TB2	Term. Block	Power, Ground	1	Ground
			2	Power
TB3, TB4, TB5, Tb6	Term. Block	LED array	1	LED+
			2	LED-

Jumpers

<u>Desig</u>	<u>Name</u>
JU3	Terminator DMX512
JU1	RJ45 Power pass-through for J1
JU2	RJ45 Power pass-through for J2

Indicators

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

Switches

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

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 quickly 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	Function
0	0	0	No change. Address and config params default to stored value
0 through 5	0	1 8	Set DMX address
6	0	x	Set fade rate to x. 0 = off, 9 = slowest
6	1	x	Set Power-On Self Test (POST) parameters
		x	<u>POST condition</u>
		0	No POST
		1	test patten
		2	DMX signal check (flash Ch0 if no DMX detected)
		3	test pattern + DMX signal check
		4-9	unused
9	0	x	Test fade rate, x = rate. 0 = off, 9 = slowest
9	9	x	Test light channels
		x	<u>Chan0 Chan1 Chan2 Chan3</u>
		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	KiloColor Demo (Reserved)

*-F/W rev. 1.02 and higher