

# Optical Switch Evaluation Kit Circuit Board and Software (MEMS)

(Protected by U.S. patent 6823102 and pending patents)

## Product Description

The SW-DR-3 optical switch evaluation kit is comprised of an evaluation board, software, a power supply, and a computer interface cable. The evaluation board integrates standard RS232 port or USB based virtual COM port plus TTL interfaces, allowing the user to easily create flexible and customized control logic configurations. It features real time control and supports Agiltron MEMSLatch™ 1x4 and 1x8 switches, 1x2/2x2 switches will be supported on next version. A user-friendly Windows™ application program is included for multi-purpose switch testing and demonstration.

The standard driver controls one individual switch. Drivers that control multiple switches also are available, please call Sales at (781) 935-1200 for more information.

## Features

- RS232 or USB based Virtual COM Port plus TTL Interface
- Real time high speed
- Flexible ports configuration
- User-friendly software
- High reliability

RS232



USB(VCP)



## Electrical Specifications

Parameters	Min	Normal	Max	Unit	Notes
Independent Control Channels	1		8		
Switching Peak Current			1.5	A	12V Supply voltage
Sustainable Switching Current			0.4	A	Average switching current, continuous repetition, 12V Supply voltage
Output Pulse Width	8		15	ms	Driving pulse duration, software adjustable
Power Supply Voltage	5.0	12.0	16.0*	V	
Power Supply Current (No Switching)			50	mA	Hot pluggable. <1.5A inrush current
RS232	-5.2V		+5.2V	V	Pin 2 and 3 crossover cable
TTL Interface	Compatible with Standard TTL Logic Level				
Electrical Connector Type	Male DB9 / USB B-type(VCP)				
Board Dimension	(L)60mm x (W)60mm x (H)15mm				

\*Over this value will damage the device

## Control Modes

**RS232/ VCP Control** For customized software development utilizing Command/Response format interface. Also used with the supplied Windows™-compatible software for switch configuration and programmable run time testing.

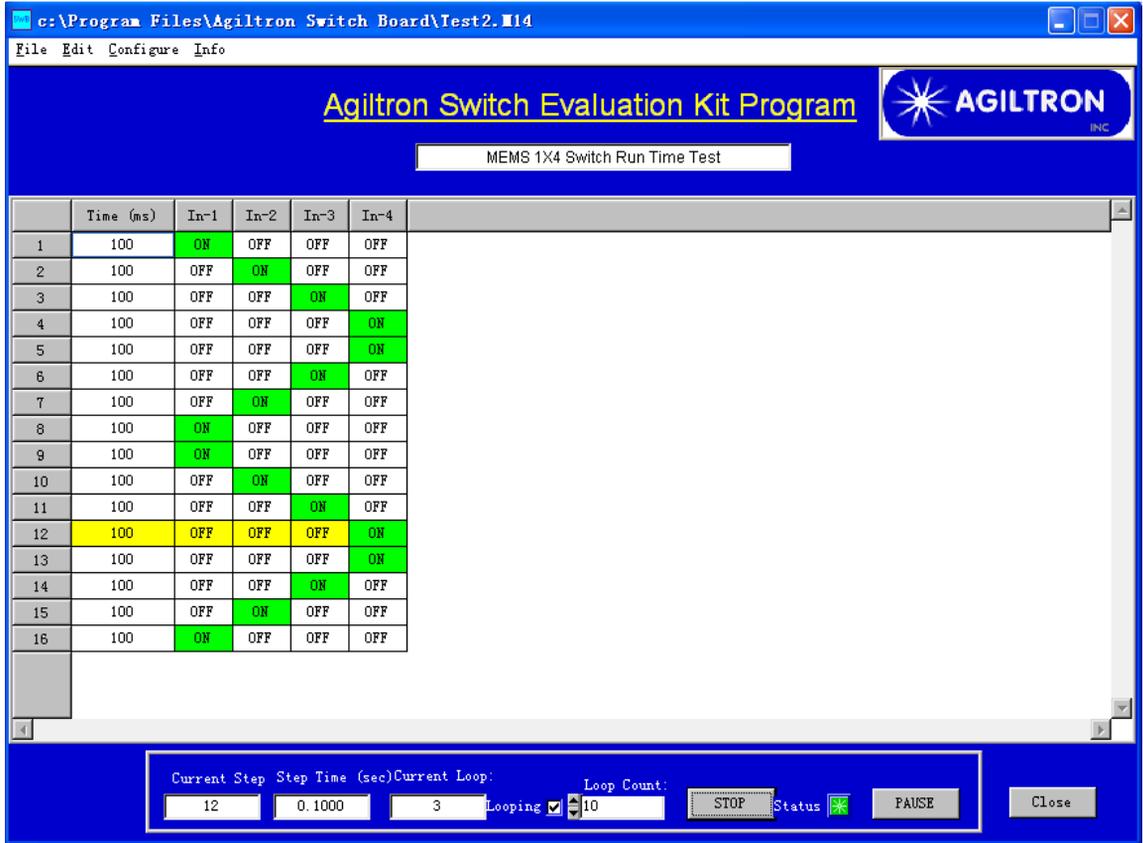
**TTL Control** Standard TTL logic level with TTL logic timing diagram. TTL emulating DIP switches are available on the circuit board.

## Applications & Compatibility

- 1x4 MEMSLatch™ Switch
- 1x8 MEMSLatch™ Switch
- 1x2/2x2 MEMSLatch™ Switch (will be supported on next version)

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## Graphic Example (1x4)



	Time (ms)	In-1	In-2	In-3	In-4
1	100	ON	OFF	OFF	OFF
2	100	OFF	ON	OFF	OFF
3	100	OFF	OFF	ON	OFF
4	100	OFF	OFF	OFF	ON
5	100	OFF	OFF	OFF	ON
6	100	OFF	OFF	ON	OFF
7	100	OFF	ON	OFF	OFF
8	100	ON	OFF	OFF	OFF
9	100	ON	OFF	OFF	OFF
10	100	OFF	ON	OFF	OFF
11	100	OFF	OFF	ON	OFF
12	100	OFF	OFF	OFF	ON
13	100	OFF	OFF	OFF	ON
14	100	OFF	OFF	ON	OFF
15	100	OFF	ON	OFF	OFF
16	100	ON	OFF	OFF	OFF

Current Step: 12    Step Time (sec): 0.1000    Current Loop: 3    Looping     Loop Count: 10

Buttons: STOP, Status , PAUSE, Close

## Ordering Information

SWDR-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>
	Switch Type	Function	Size(mm)		# of Switch	Control Mode
	MEMS switch=44	1x1=11 1x2=12 2x1=21 1x4=14 4x1=41 1x8=18 8x1=81 Special=00	60x60x15=1 Special=0		1 switch=11 2 switches=22 3 switches=33 . . 9 switches=99 Special=0	RS232 & TTL=1 USB(VCP) & TTL=2 Special=0

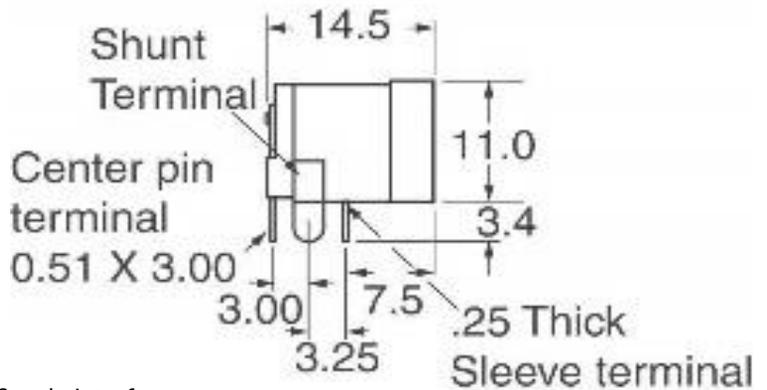
\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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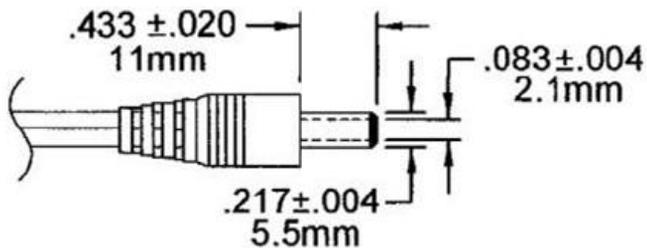
## Power Connector

P/N: [SC1313-ND](#)

Power Barrel Connector Jack 2.00mm ID (0.079"),  
5.50mm OD (0.217") Through Hole, Right Angle



12V Wall Plug DC Power Supply Interface



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