

# Optical Switch Evaluation Kit Circuit Board and Software

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

## Product Description

The SW-DR-1 optical switch evaluation kit is comprised of a driver board, a switching mounting board, software, a power supply, and a computer interface cable. It is designed to drive and control Agiltron CrystaLatch™ (CL) series and LightBend™ (LB) series optical switches up to 15 switching points. The evaluation board integrates both standard USB and TTL interfaces, allowing the user to easily create flexible and customized control logic configurations. It features real time control and supports all port configurations of Agiltron CL and LB series switches. A user-friendly Windows™ application program is included for multi-purpose switch testing and demonstration. Also, we can provide RS232 interface if requested - please contact Agiltron sales.

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

- USB & TTL Interface
- Real time high speed
- Flexible ports configuration
- User-friendly software
- High reliability

## Electrical Specifications

Parameters	Min	Normal	Max	Unit	Notes
Independent Control Channels	1		8		
Switching Voltage	4.5	5	5.5*	V	$V_{sw} \leq 5 - 0.35 \times I_{sw}$ I <sub>sw</sub> : Switching current in A
Sustainable Switching Current			1.2	A	Total switching current, continuous
Output Pulse Width	100		3000 0	μs	Driving pulse duration, software adjustable
Power Supply Voltage	4.75	5.0	5.25	V	
Power Supply Current (No Switching)			50	mA	Hot pluggable. <1.5A inrush current
USB				V	Direct connection to PC
TTL Interface	Compatible with Standard TTL Logic Level				
Electrical Connector Type	Male AMP 103309-2 or equivalent				
Board Dimension	(L)100mm x (W)60mm x (H)15mm				

\*Over this value will damage the device

## Control Modes

**USB 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.

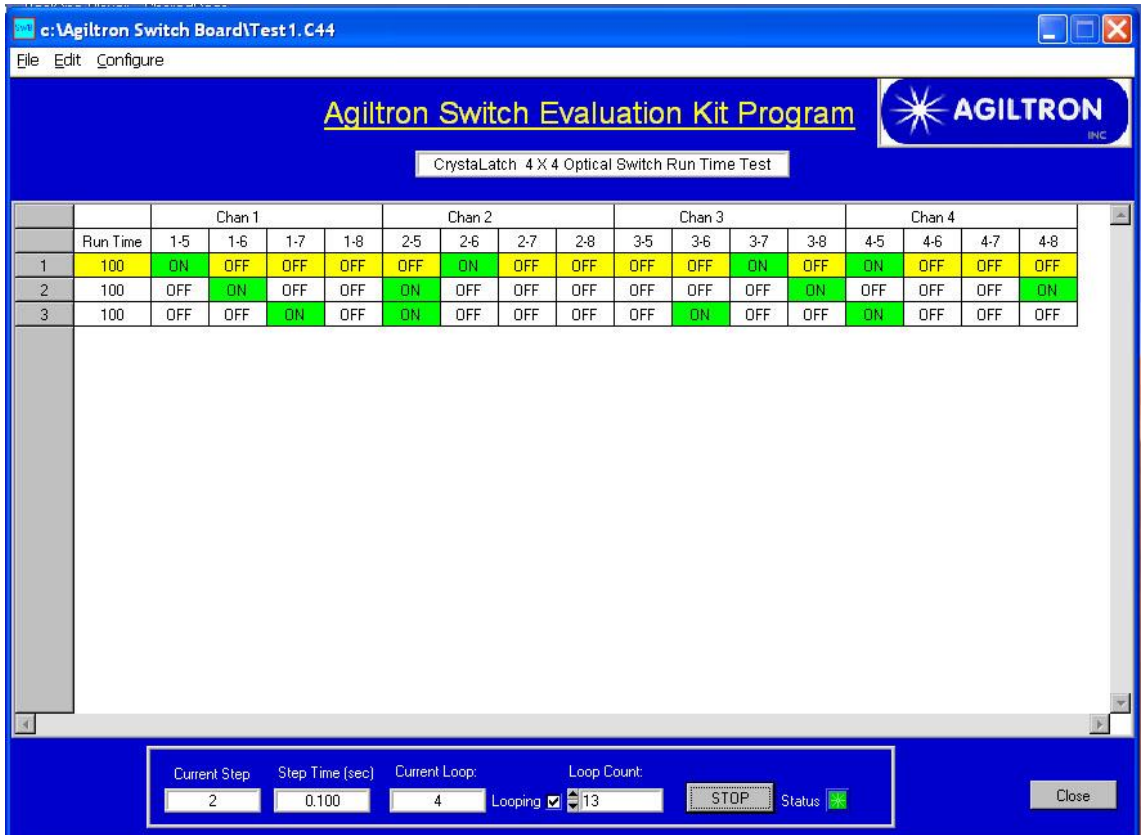
**TTL Control** Standard TTL logic level with TTL logic timing diagram. A TTL emulator is available on the circuit board.

## Applications & Compatibility

- NxM CrystaLatch™ Switches (N=1,2 M≤8; N=4, M=4)
- NxM LightBend™ Switches (N=1,2 M≤8; N=4, M=4)
- Multi-functional electronic control

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## Graphic Example (1x4)



	Run Time	Chan 1				Chan 2				Chan 3				Chan 4			
		1-5	1-6	1-7	1-8	2-5	2-6	2-7	2-8	3-5	3-6	3-7	3-8	4-5	4-6	4-7	4-8
1	100	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
2	100	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
3	100	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF

## Ordering Information

SWDR-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Switch Type	Function	Latching or not	Repeat rate	Footprint	# of Switch	Control Mode	DC supply
	NS Switch =1 CL switch = 2 LB switch = 3 MEMS Switch = 4	1x1 = 1a 1x2 = 2a 2x1 = 2b 2x2 = 22 1x4 = 4a 4x1 = 4b 1x12 = 12 1xM = M (M >9) Special=00	Latching = 1 Non-latching =2	20Hz = 1 2kHz = 2 5kHz = 5 100kHz = 6 500kHz = 9 Special = 0	Standard = 1 Octo switch = 2 Special = 0	1 switch=1 2 switches=2 3 switches=3 N switches=N Special=0	TTL=1 USB =2 RS232 =3 TTL & USB = 4 RS232 & USB = 5 Special=0	12VDC =1 5VDC <sup>[1]</sup> =2 Special =0

[1]: 5V DC supply may not be available for certain switch. Please have a consultant with sale's manager.