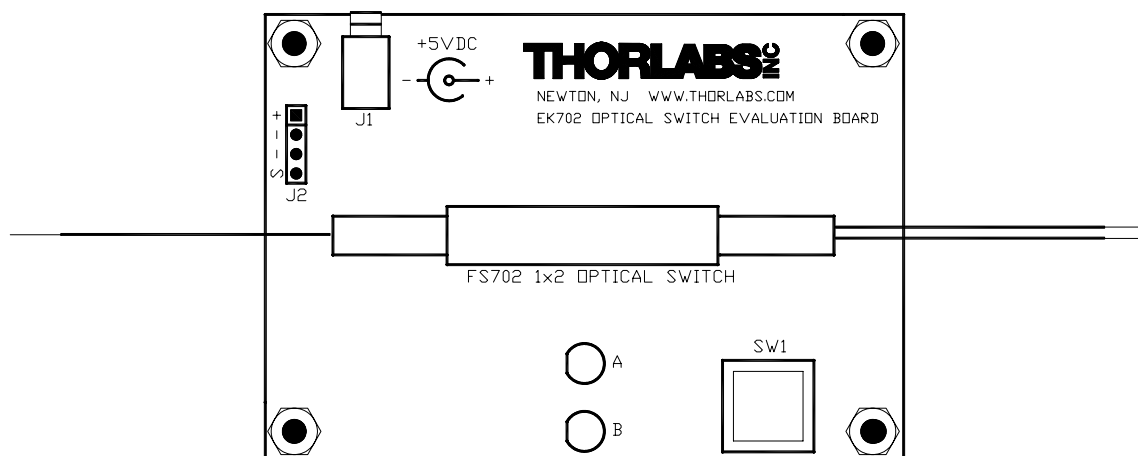

EK702

Optical Switch Evaluation Kit

Operating Manual



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Performance Specifications

Table 1 - Specifications

Parameter	Min	Typical	Max	Unit
Operation Wavelength	1520	1550	1610	nm
Insertion Loss @ 1550 nm	0.4	0.7	1*	dB
Cross talk	-40	-50	-60	dB
Switching Speed	20	50	200	μs
Return Loss		55		dB
Optical Power		400		mW
PDL		-0.1	- 0.2	dB
PMD		0.1		ps
Operating Temp	10		40	°C
Operating Voltage	4.5	5.0	5.5	V
Fiber Type		SMF28		

*Connectorized versions 1.3dB max

Operation

Normal Operation and Use

Caution! Always observe proper Laser safety when operating this unit. Do not look directly into any of the FC connectors and always keep the covers on any FC connector that is not in use.

- 1) Locate unit on a solid, dry working surface.
- 2) Connect 5 VDC to J1 or to J2-1 (+) and J2-2 (-). J1 is compatible with Thorlabs, Inc. power supply P/N LDS1.
- 3) Once power is applied, the “A” switch position indicator will turn ON and the optical switch will be set to connect the Input fiber to one of the two output fibers.
- 4) Switch positions can be toggled by two methods: Simply pressing switch SW1 on the PCB, or applying a momentary remote switch closure across J2-3 (-) and J2-4 (S).

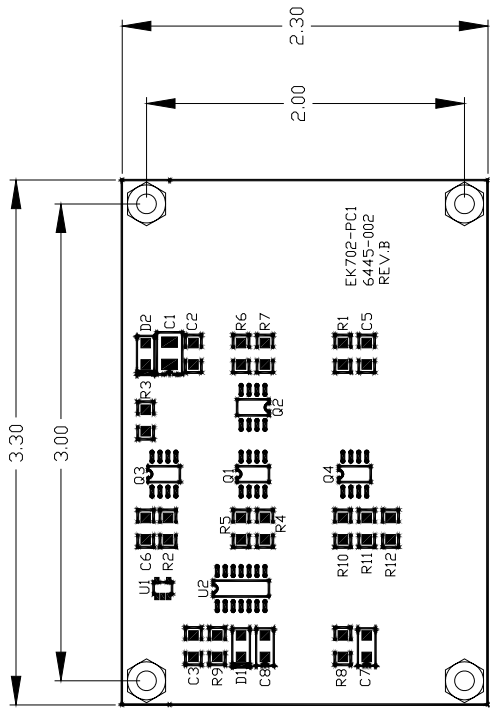
Latching Operation and Power On Reset

The optical switch used in the EK702 is configured for latching operation. Because of this the unit can be powered OFF and the output state of the switch will remain in its last position. However, once power is restored to the unit the switch will reset to the “A” position.

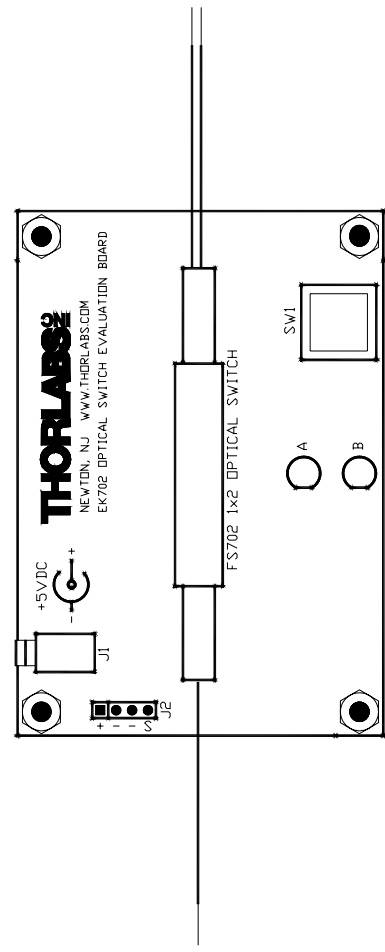
Care and Maintenance of the EK702

The Optical Switch can be removed and replaced if necessary by carefully unclipping the switch unit from the PCB and lifting it out of its sockets. Installation is done in the reverse order.

REV.#	DESCRIPTION	NAME/DATE:
A	INITIAL RELEASE	RDS 2/24/02
B	REMOVED J3 ECRD 6445-004	RDS 4/28/05



STANDOFF 4 PLACES
0.25" HEX
#4-40 FEMALE THREAD
0.187" DEEP



Connector Assignments:
J1 +4.5 to +5.5VDC
Accepts 2.5mm male phono jack
J2-1(+) +4.5 to +5.5VDC with respect to J2-2(-).
J2-4(S) Remote Switch Input
Normally Open, when momentarily closed
to ground, J2-3(-) Optical Switch will toggle.

Fiber Lengths: 1 meter typical

THORLABS PD BOX 366	
TITLE EK702 Engineering Support DWG	
TOL: XXXX+/-0.005 XXXX+/-0.010 ANGLAB +/-30°	
SURF FINISH: 32 MICROINCHES UNLESS OTHERWISE NOTED	
DESIGNED BY	APPROVED
ENGINEER	RDS
MATERIAL	
DATE	REV. SIZE SHEET
2/22/02	B A 1 OF 1
DWG NO.	PART NO.
6445-E01	EK702