Other Products

PolaSwitch

Q. **What is the difference between switching and latching current/voltage?**

A. The PolaSwitch rotates the input polarization state to either of two states which are 45° or 90° apart, depending on the configuration ordered. The switching current and voltage indicate the current and voltage that must be applied to switch the polarization state from one of these two states to the other, while the latching current and voltage are the current and voltage that must be applied to maintain the switch in its current state. Nominally, a voltage of 2.5V between the two pins corresponds to one state, and -2.5V to the other. For example, if the switching voltage is 2.5V, and the latching voltage is 1.5V, then if the switch is initially in the -2.5V state, applying a voltage of +2.5V will switch it to the other state. Once it is switched, the applied voltage must be maintained above 1.5V to maintain the new state.

Q. **What happens when 0 volts is applied between the pins?**

A. This is essentially an "off" state. The output polarization state can float, and the insertion loss will be higher than when the switch is in one of its two defined states.

Q. **Is a driver available for the PolaSwitch?**

A. Yes. The driver board requires an 8-15VDC/200 mA power supply, and uses TTL level inputs to specify output state (TTL high for one state, and TTL low for the other). The driver board generates the necessary switching and latching voltages and currents in the proper order in order to control the switch with minimal heating effects. The maximum switching rate with the board is 1 kHz (1ms per state).

NoTail Components

Q. **What is the fiber length inside a NoTail™ component?**

A. It depends on the product. For a 2-port device like an isolator, fiber length is typically about 2cm on each side, while for a 3 or 4-port device, it is typically about 20cm on each side.

PBC/S vs. PM Coupler

Q. **What is the difference between a polarization beam combiner/splitter and a PM coupler?**

A. The polarization beam combiner/splitter is used to combine or separate two signals of orthogonal polarization state. The power ratio of the split components depends on the ratio of the two orthogonal polarization components in the combined signal. The PM coupler is used to split a single-polarization signal (usually aligned to the slow axis of the fiber) into two or more paths with a specified power split ratio.