

NEW

Optical Delay Line Module ODL-340

The ODL-340 module uses an air gap method to generate a delay in the optical signal. The duration of the delay is controlled by adjusting the position of a prism reflector so that the optical distance between the input and the output collimators is varied. The device allows an adjustment of up to 49.5mm, corresponding to an optical delay of up to 330ps.

Features

- ▶ Simple and unique air gap delay mechanism
- ▶ Max. delay up to 330 psec
- ▶ Low PDL (< 0.1 dB)
- ▶ Low insertion variation (<0.6dB)
- ▶ Delay tuning knob with lock function

Applications

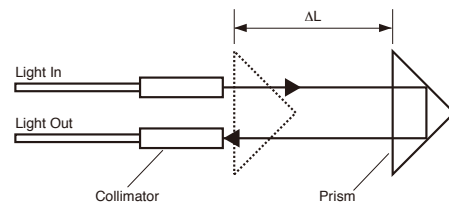
- ▶ Optical time domain effect measurements
- ▶ PMD compensation experiments
- ▶ Time division multiplexing
- ▶ Fiber interferometers



Principle

Air gap tuning method

A variable optical delay is achieved using the "air gap tuning method" to vary the path length. Coupled with santec's linear sliding technique, very high accuracy delays of 330 psec are possible using the ODL components.



Delay: $t=2\Delta L/c$, where $2\Delta L$ is the air gap (optical path) difference, c is the speed of light.

Note: "Delay" is a relative value; absolute delay of the module is not precisely specified.

Specifications

Parameter	Units	Performance
Wavelength range	nm	1260 - 1650
Delay range	ps	0 - 330
Resolution	ps	0.2
Insertion loss (max.) (*1)	dB	1.0
Insertion loss variation (*2)	dB	<0.6
PDL	dB	<0.1
Operating Temperature	°C	10 - 40
Dimensions (Width x Height x Depth)	mm	145x26x58

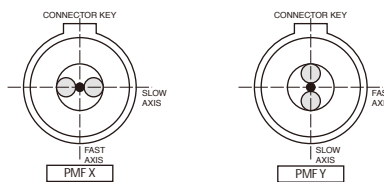
*1 When PMF is specified the insertion loss increases by 0.5dB.

*2 When PMF is specified the insertion loss variation increases by 0.2dB.

Ordering Code

ODL-340 - **A** - **B** - **C** - **D** - **E**

Connector Polish : **SP** : SPC / **AP** : APC (Angled PC) /
X : SPC (PMF X) / **Y** : SPC (PMF Y)



Connector Type : **F** : FC / **S** : SC

Fiber Length : **10** : 1.0m

Fiber Jacket : **09** : 0.9mm (Tight Buffer)

Optical Fiber : **S** : SMF / **P** : PMF

Please contact Santec's customer service to discuss any special requirements.

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