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1000m Nanosecond Fiber Optic Delay Line



• Product Description

Idealphotonics manufacturing compact and low-loss fiber optic coils requires attention, precision, and skill. Our F-TDC compact time delay coils feature a proprietary manufacturing process that provides extremely low insertion loss while meeting your budget and small space requirements.

• Part Number

LP-TDC-L1000-SA

Product features

Compact size Low insertion loss Choose your own delay length Rugged construction Easy to use

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Application area

Optical buffers for optical networks 、 Gyroscopes sensors and signal processing 、 Radar and instrument calibration 、 Laser spectroscopy 、 Time delay of optoelectronic oscillators Nonlinear fiber loops 、 Fiber network testing and analysis 、 Optical packet switching, buffering, routing and input/output synchronization

Dimensional Drawing



Parameters

Parameter	Symbol	Min.	Typical	Max.	Unit
Fiber length	L	10	500	5000	m
Typical loss	IL	0.1	0.2	0.3	dB/km
Operating	λ	1260	1500	1700	nm
wavelength					
Operating	т	-40	25	85	°C
temperature					
Fiber type		HI1060/SMF-28E/PM1550(Optional)			
Operating power	Pf	500	1000	5000	mW
Frame size	Customize				
Connector type	FC/APC or FC/PC				
Fiber delay range	Depends on the fiber length*				



2xR0.2

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NOTE

*Calculating the Required Delay Length

To calculate the required fiber length to obtain a specific time delay, use the following formula: $L = c \Delta t / n$, where c is the speed of light in a vacuum, Δt is the desired time delay, and n is the refractive index of fused silica at the wavelength of interest (n = 1.4677 at 1310 nm, n = 1.4682 at 1550 nm).

Ordering Information

LP-TDC-LDDD-XX LDDD: length 0010: 10m 0100:100m 1000:1000m XX: Fiber and connector type SN=SMF-28E Fiber + None SA=SMF-28E Fiber + FC/APC SP=SMF-28E Fiber + FC/PC PP=PM Fiber Fiber + FC/PC PA=PM Fiber Fiber + FC/APC

