Variable Optical Delay Module
(Turn-Key solution for all applications)

Product Description

The VODM Series Optical Delay Module selectively routes an input optical signals through N fiber segments whose lengths increase successively by a power of 2. The module therefore provides N bit resolution of digitally variable time delay with a maximum delay time and resolution defined by customer. We offer several switching choices of non-mechanical high reliability switching; ultra-fast nano-second switching; and low loss MEMS switching. PM fiber and integrated optical amplification versions are also available.   The module utilizes our unique low loss fiber coil winding technology. The module front has an input fiber and an output fiber and LEDs indicating the chosen fiber loops in each operation state. The driving electronic is packaged inside and interfaces with a GUI computer through RS232, RS485, USB, or RJ45.

Features

· High Resolution
· High Speed
· Large Time Delay Range
· High Reliability
· Low Insertion Loss
· Low Power Consumption

Applications

· Phase-Array Antennas
· Instrumentation

Performance Specifications

Optic Delay Line Module		Min	Typical	Max	Unit
Wavelength band		1520	1550	1580	nm
		1280	1310	1340	nm
Insertion Loss[1]			4.0	4.5	dB
Cross Talk		22	28		dB
Switching Time(fall, rise)	CL		50	200	µs
	NS		100		ns
	MEMS		10		ms
Repetition Rate		0.05		1000	KHz
Delay Time Range		n		m	s
Polarization Dependent Loss			0.25	0.45	dB
Polarization Mode Dispersion			0.1	0.2	ps
Return Loss		50	55		dB
Operating Temperature		0		60	ºC
Optical Power Handling			400		mW
Storage Temperature		-40		85	ºC

Note:
[1].For 4 bits with time delay < 1 µs.
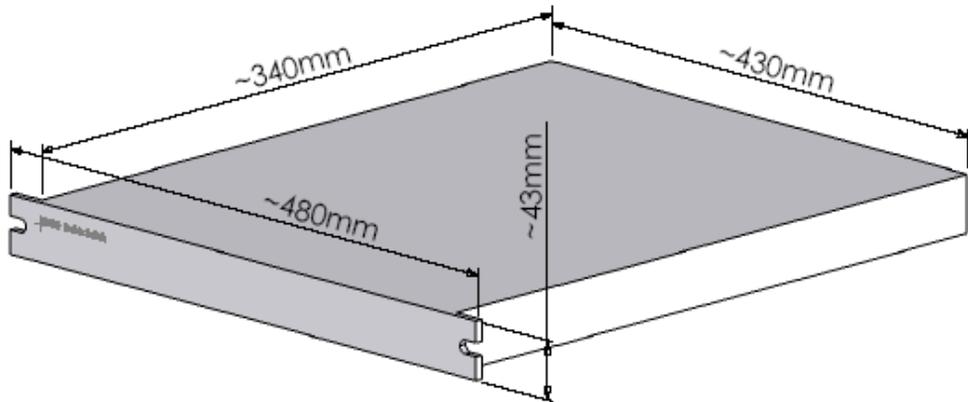Optical amplification option is available for long fiber

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Solid State Variable Photonics Time Delay Full System

Electrical Driving Requirements

USB or RS232 with PC GUI

Mechanical Dimensions (mm)

Ordering Information

VODM-						1		0	
	Resolution	**Wavelength**	**Switch**	**Amplification**	**Fiber Type**	**Interface**		**Delay Range**	**Connector**
	04=4 bit 05=5 bit 08=8 bit 09=9 bit 10=10 bit 11=11 bit 12=12 bit	1550=5 1310=3 Special=0	1=CL 2=NS 3=MEMS	1= yes 0 =no	SMF-28=1 Panda=2 Special=0	1=USB 2=GPIB 3=RS232 4=RS485 5=RJ45 Ethernet		Custom	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Special=0