

# Free Space Variable Optical Delay Lines

(Femtosecond Resolution, up to 4000ps delay, USB/RS232 GUI)

## Product Description

The Motor Driven Free Space Variable Optical Time Delay is an all-in-one module integrated with high precision optical position feed-back controller with USB/RS232 computer interface and user friendly GUI. It features micron-level high resolution, unmatched low cost, fully covered dust-free moving track, compatible with various mirrors, all degree light path adjustments, and ease in use. In operation, connecting the wall-pluggable power supply (included) and a computer via a USB cable (included) or a RS232 cable to the unit, the graphic control software (downloadable) will perform step scan in both forward and reverse direction. It also has a manual moving control knob.

The module come with a standard one year manufacture warranty.



## Performance Specifications

Parameter		Min	Typical	Max	Unit
Maximum Time Daly and Resolution	1466ps			+2	μm
	2000ps			+7	
	4000ps			+9	
Max Speed <sup>[2]</sup>	1466ps		20		mm/s
	2000ps		20		
	4000ps		20		
Durability (Life cycle)		10 <sup>7</sup>			
Operating Temperature		0		70	°C
Storage Temperature		-40		85	°C
Mirror Size			1"		

## Electrical Connection/ Operation Instruction

1. Connect the power supply (included)
2. Connect to a computer with the USB cable (included) or a RS232 cable
3. Install Windows™ GUI software (download)
4. Click run

## Features

- Low Cost
- fs Resolution
- Fast
- 4000ps Delay
- High Reliability
- Dust Cover
- Easy to Use

## Applications

- Instrumentation
- Lab use

# GUI

Connection:   USB  RS232  
*(Offline) Click button to reconnect*

Relative Delay (ps) Stage Position (mm)

0 100 200 300 400 500 600 700 800 900 1000 1100 1200  
 < 

←

→

 >

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

Scan Parameters

Ref 1 (mm)

Ref 2 (mm)

Delay Dwell Time (Sec)

Scan Step Size (mm)  Repetition Times

Stage Status

Stage Position (mm)

Relative Optical Delay (ps)

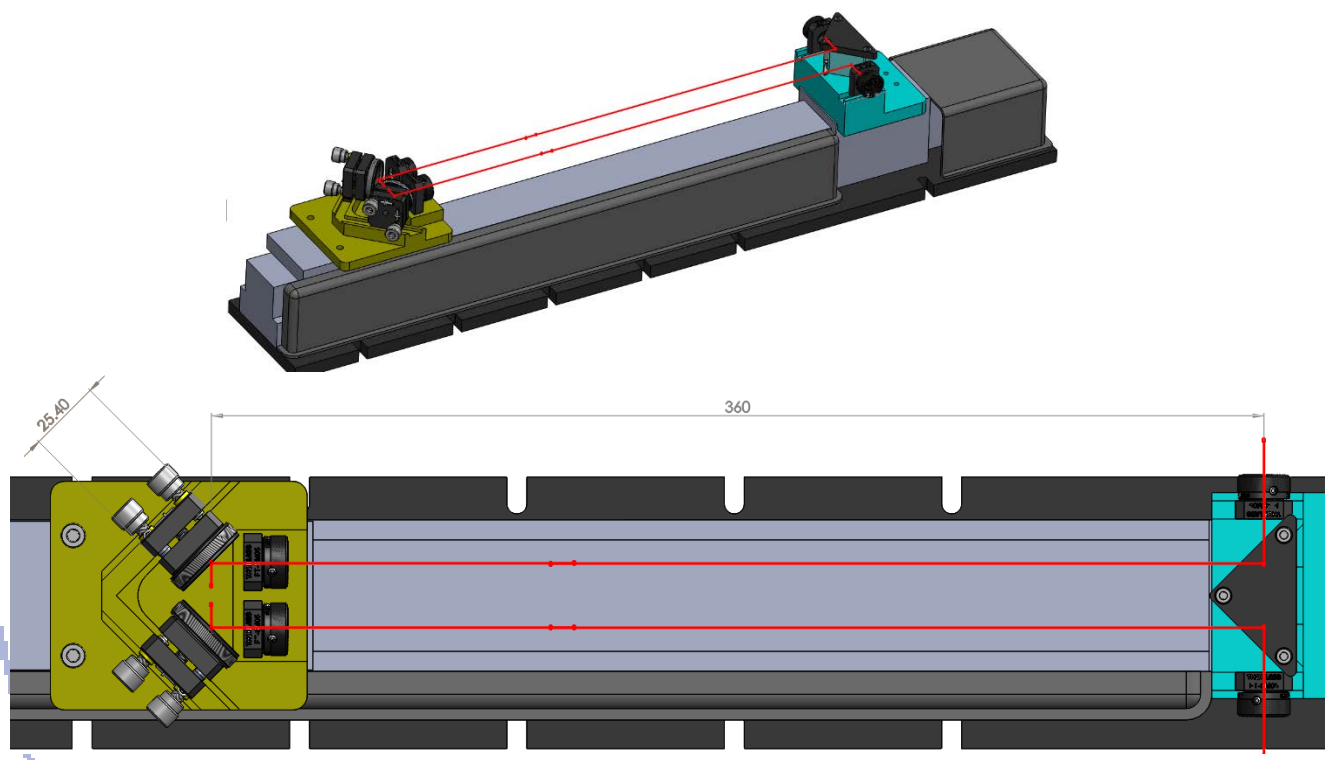
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Manual Parameters

Units  mm  pSec

Move Stage (mm)

# Mechanical Dimension



## Parts List To Be Included

The module come with integrated controller and all the mechanical parts shown in the picture including two Adjustable Mirror Mounts, one Angle Bracket. Optical mirror and reflection prism can also be purchased here or from other vendors.

Qty	Part Number	Description
2	RFSM	Silver Mirror, 25.4 mm, $\lambda/10$ , 480-20,000 nm
3	IDAA	Iris Diaphragm, 1 to 11 mm Aperture Range, 10 Leaves
1	RFGP	Glass Reflection Prism

## Ordering Information

FSDL-	0 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Max Delay (ps)	Minimum Step	Speed	Package	Mirror	Prism	Iris
	Motorized=01	1466=1 2200=2 4000=3	8fs=1 Special=0	Standard=1 Special=0	Standard=1 Special =0	Non=1 1 =2 2=3 3=4	Non=1 1 =2 2=3 3=4	Non=1 1 =2 2=3 3=4

2200ps is standard in stock item

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.