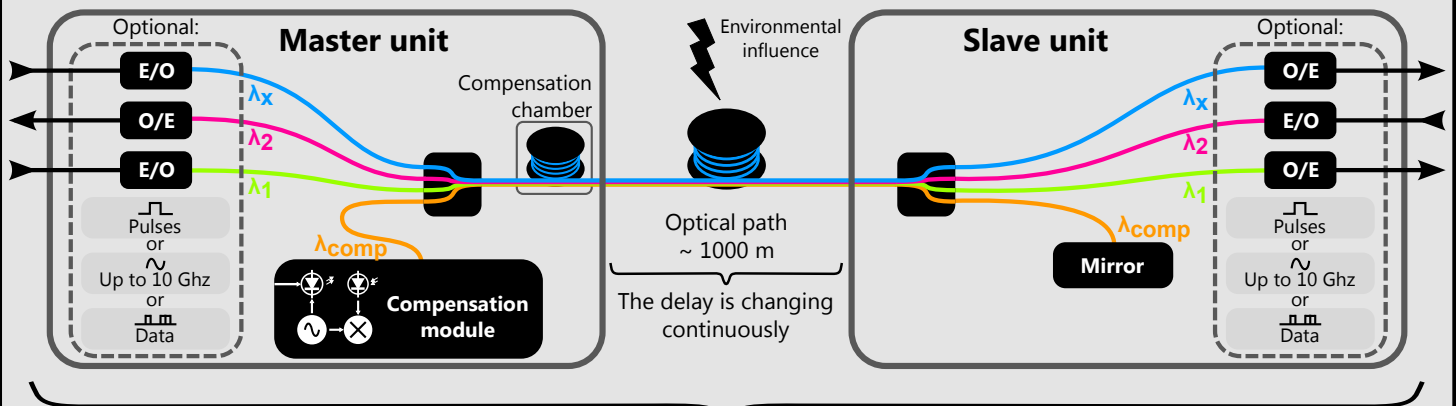


Constant-delay Optical Transfer System

The constant-delay WDM transfer system stabilizes an optical-path length (a delay) between two user points connected via a single single-mode optical fiber.

A **user signal** is transferred over an **independent** bidirectional **optical channel**. Optional **1 PPS** or analog electro-optical conversion (up to **10 GHz**) may be used. For a **stabilization** of an optical-path length an **internal heated/cooled fiber** spool is used. When a **faster** compensation response is needed, an additional **piezo-controlled** fiber stretcher can be installed inside the device.



The delay is **constant**
 (delay stability better than 1ps /24h)



OPTIONS:

- Precise delay measurement
- Precise distance measurement
- Custom user wavelength selection

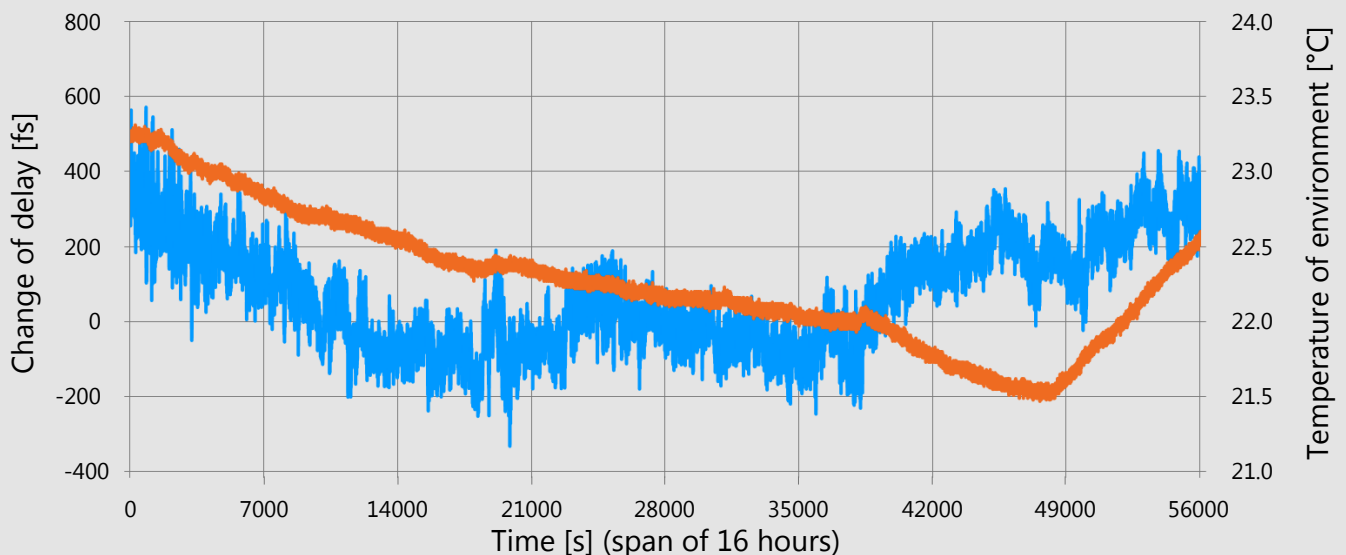
APPLICATIONS:

- Clock and timing distribution
- Constant delay simulation
- Optical-path drift measurement

KEY FEATURES:

- Plug&Play point-to-point system
- Optical-path delay stabilization
- Delay stability < **1 ps** / 24 h
- Bidirectional optical user
- Build-in telemetry
- USB interface

Measurement of long-term delay stability of 948 m long optical path



Parameter	Value	Comment
Reference oscillator frequency	1,2 GHz	Use of an external oscillator is also possible
Wavelength used for corrections	$\lambda_2=1310$ nm	
User wavelength	$\lambda_1=1270$ nm - 1350 nm	Additionally complete C band (1550 nm) and other bands (S, L, U) available
Number of user channels	3	Up to 7 (4 with reduced long term stability)
User channel types	Bidirectional all-optical 1 PPS (or other pulses) Up to 2 GHz analog Up to 10 GHz analog	Various data transmission types are available on request
Internal compensation-spool length	350 m	
Maximum optical-path length	do 1000 m	For the delay stability <1 ps in 24 h
Output data	/	LCD, USB
Interfaces (Master unit)	USB 1x SMA-F 1x SC/APC BNC or SC/APC	System configuration and data acquisition Reference RF signal input (optional) Main optical connection User channel input
Interfaces (Slave unit)	1x optični SC/APC BNC or SC/APC	Main optical connection User channel output
Long-term delay stability	< 1 ps	@ 948 m of G652.D fiber in 24 h
Power supply	90-263 VAC	50/60 Hz
Power consumption	30 W (max.)	Per unit
Size	430 x 350 x 44 mm	(WxLxH), 19" Rack mount, 1U height
Weight	3500 g 1500 g	Tx Rx



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