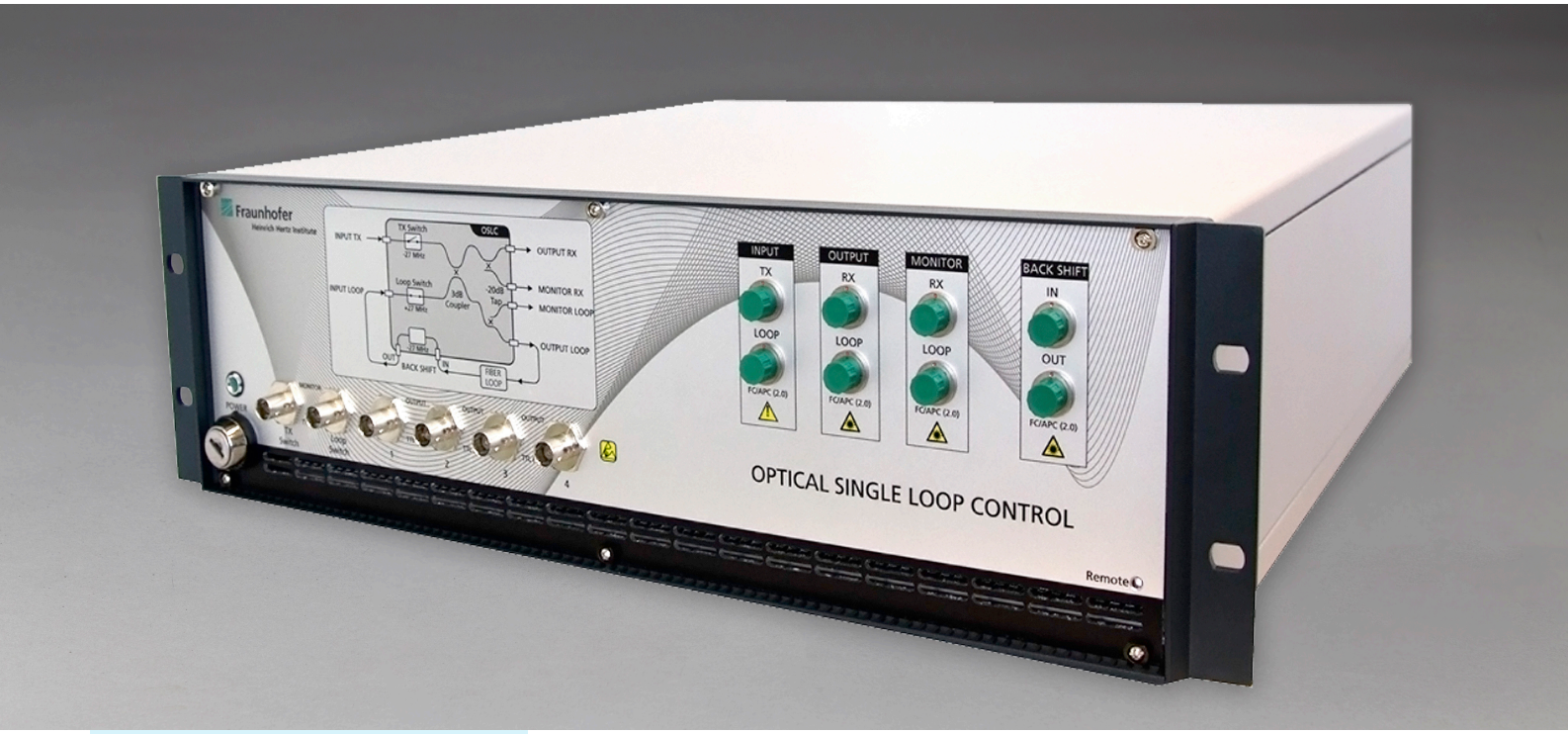
OPTICAL SINGLE LOOP CONTROL

Fraunhofer HHI



AT A GLANCE

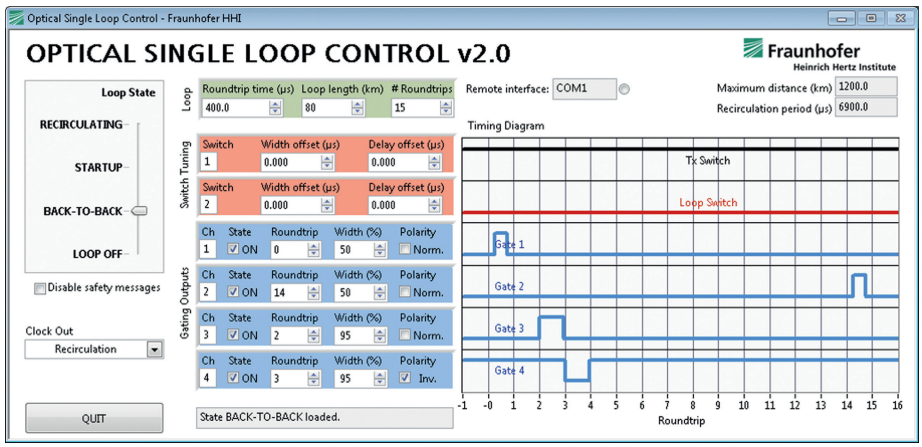
- Device for cost efficient emulation of optical long haul transmission systems spanning several thousand kilometers
- Multi-band capable (S-C-L-Band)

Features

- Quick setup of different link configurations with arbitrary length
- Bit rate and modulation format transparent
- Reduction of required system components for optical transmission tests
- Easy adaptation to user requirements
- Remote control via USB or RS232

Applications

- Test of optical components, new fibre types or complete optical subsystems
- Measurement of cascading effects and long term stability tests
- Evaluation of Submarine, Core and Metro systems
- Study of new modulation formats and node architectures



Graphical user interface

Specifications

- Insertion loss: typ. < 6 dB
- Polarisation dependent loss: typ. < 0.2 dB
- Wavelength range: C-Band (other ranges on request)
- Fiber connectors: FC/APC, other on request
- RF connectors: BNC (50 Ω)

Technical Background

Test of optical components or new fibre types for applications in longhaul transmission with several thousand kilometer distance, requires a lot of equipment. A recirculating fiber loop can be used to emulate long transmission lines in optical transmission experiments or, in general, to study the influence of multiple transitions through an optical device under test (DUT), emulating a cascade of the DUT.
The Optical Single Loop Control is designed to control the operation of a recirculating fiber loop and to provide electrical signals as trigger/gating for measurement equipment operated together with the recirculating fiber loop. The Optical Single Loop Control allows to significantly reduce the equipment count and to make longhaul transmission testing more flexible.

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