Koheras AcoustiK™

Multi-channel fiber laser system

- Single frequency operation
- Ultra low phase and vibration noise
- Turn-key 19" 3U benchtop box system
- Available with KHz frequency modulation (option)

Koheras AcoustiK™ is a 8-channel single frequency DFB (distributed feedback) fiber laser system with an extremely low phase and vibration noise, produced for multi-channel sensor interrogation systems.

The system is supplied as a stand-alone unit in a 19" 3U rack system including controller electronics and is delivered with a suitable power supply.

Optical specifications	
Koheras AcoustiK™	**E15**
Center wavelength [nm] [1]	8 channels within 1530-1565
Laser emission	CW - single frequency
Beam quality	M^2 ‹ 1.05
Output power [mW] (per laser)	Up to 50 W
Line width (120 µsec) [kHz]	‹ 1
Phase-noise [µrad/√Hz] 1m opt. path	‹-120@500MHz/ ‹-110@10Hz
RIN peak [MHz]	app. 0.3
RIN level [dBc/Hz]	‹-115@1MHz/‹-140@10MHz
Optical S/N [dB] (50 pm res.)	› 50 (depend. on wavelength)
PM output	Optional
Thermal tuning	Standard
Thermal tuning range [nm]	› 0.6
Fast Piezo tuning capability	Optional
Piezo-electric tuning range [pm] [2]	› 16 (0-200 V DC)
Piezo-electric tuning bandwidth [kHz] [3]	up to 100
Optical monitor output	Incl. (FC/APC)

1. The center wavelength is selectable within the specified range.
2. External piezo driver required.
3. All optical specifications are valid up to 10kHz PZT bandwidth.

Key features

- Stable single mode and single polarisation operation
- Burst noise and mode hop free operation
- Unprecedented low phase and intensity noise
- Ultra narrow linewidth
- Reduced susceptibility to vibration noise
- High wavelength selectability within ITU grid
- Riliable stand-alone unit in a 19" 3U rack system
- Digital control interface

Examples of applications

- Sensor interrogation for oil and gas exploration

Technical specifications	
KOHERAS AcoustiK™	**E15**
Power supply requirements [VDC]	90-240 VAC; 50-60Hz
Fiber pigtail length [m]	› 1
Connectors	FC/APC or collimated
Dimensions	19" 3U
Operating temperature range [°C]	15 - 40
Storage temperature range [°C]	-20 - 50

Acoustik-100413

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