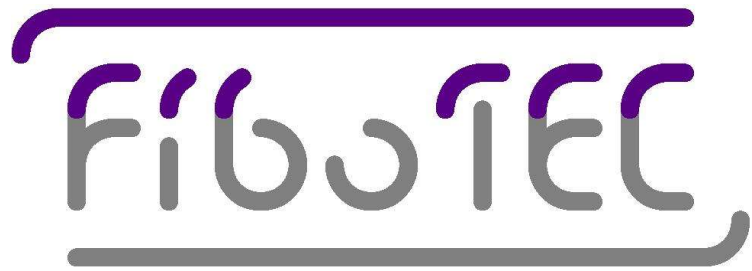


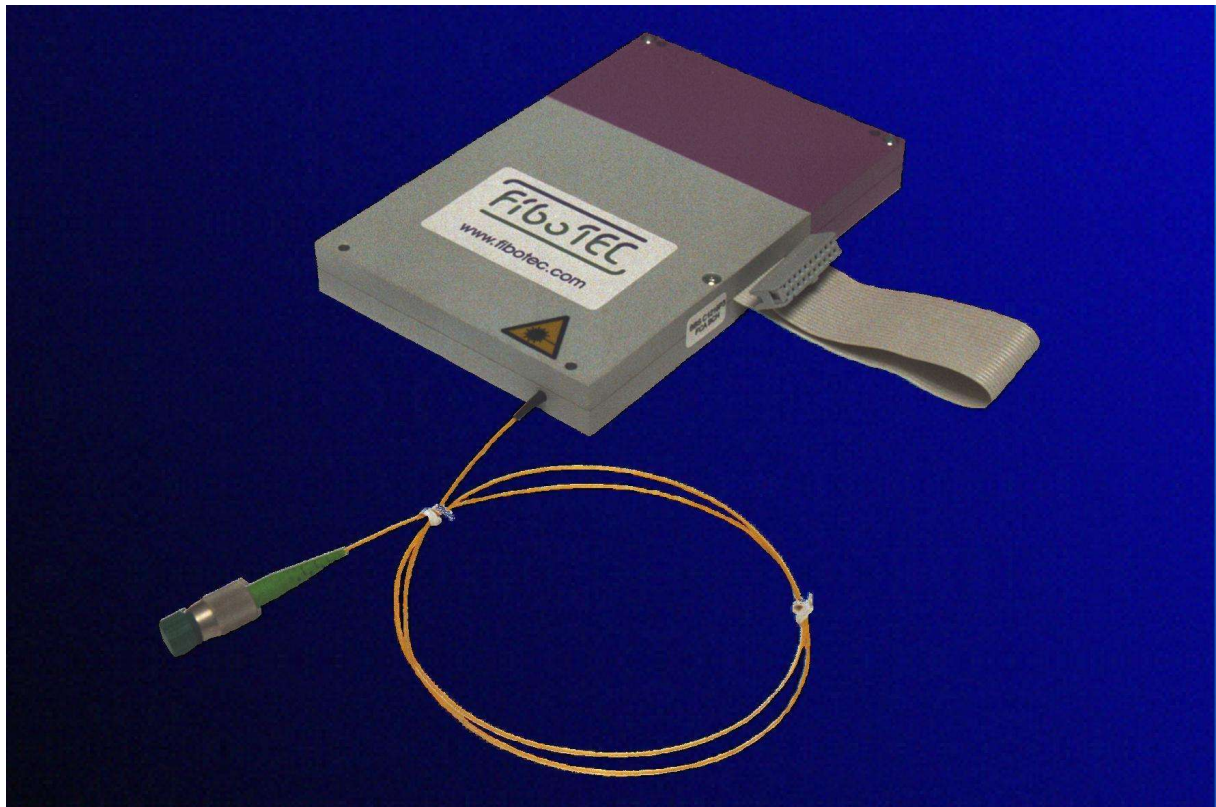
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User's Manual

Broad-Band Source BBS CL 17P3 FCA M02

(Version Nov. 2006)



The Broadband Source „BBS CL 17P3 FCA M02“ is a power-stabilized C+L-band ASE light source emitting a continuous spectrum in the wavelength range 1520-1610 nm. The ASE emission is achieved by optically pumping an erbium-doped fiber with a semiconductor laser of 980nm pump wavelength. The ASE output power exceeds 17dBm, emitted from a single-mode fiber with FC/APC output connector.

Typical applications of this optical broadband source range from optical component spectral tests to measurement systems and imaging applications.

The unit is equipped with a logic controlling the operation of the pump laser. It monitors protective features such as temperature and power of the laser diode.

Safety precautions

This manual contains a description of controls, adjustments and procedures for normal operation of the broadband source. The BBS should only be operated by qualified personnel who reviewed this manual before installing and applying the module.

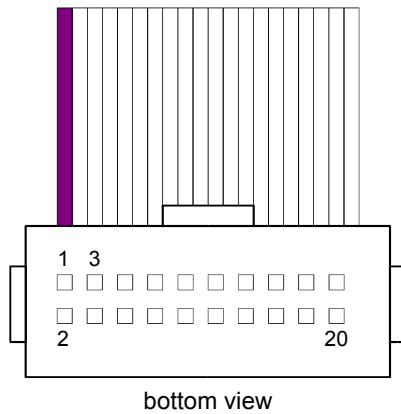
CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

LASER SAFETY: This product contains laser diodes of class 3B. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.



Installation

- Mount the module on a flat heat-sink by means of four M4 screws. Ensure that the operating temperature range of the module is guaranteed during operation.
- Pin description of the supply voltage / controls connector:



- 1 - 4: V_{cc} (4.5 - 5.5 V dc stabilized, 2 A)
- 5 - 8: gnd
- 11: Enable input (CMOS, active high)
- 13: Temperature error output (CMOS, active high)
- 14: Module error output (CMOS, active high)

- Because the module includes no on/off-switch, it enables laser emission as soon as the supply voltage is applied! Nonetheless in normal operation no laser emission should take place as long as the enable input remains open or grounded.

CAUTION: Danger of eye hazard! During operation of the module never look directly into the optical output connector(s)!

Operation

The module includes no on/off-switch. Emission starts as soon as the supply voltage is applied and the enable input is provided with a CMOS high signal.

During operation both error outputs (temperature error and module error) should be continuously monitored. In case of an error indication (output high) immediately switch off the emission by setting the enable input to low.

A temperature error indicates that the module is operating above maximum temperature and that the pump laser(s) suffer cooling. Please check whether you are operating the instrument within the temperature limits.

A module error indicates that optical power stabilization cannot be maintained. Either the module is operated outside its temperature limits or the pump laser(s) end of lifetime is reached.

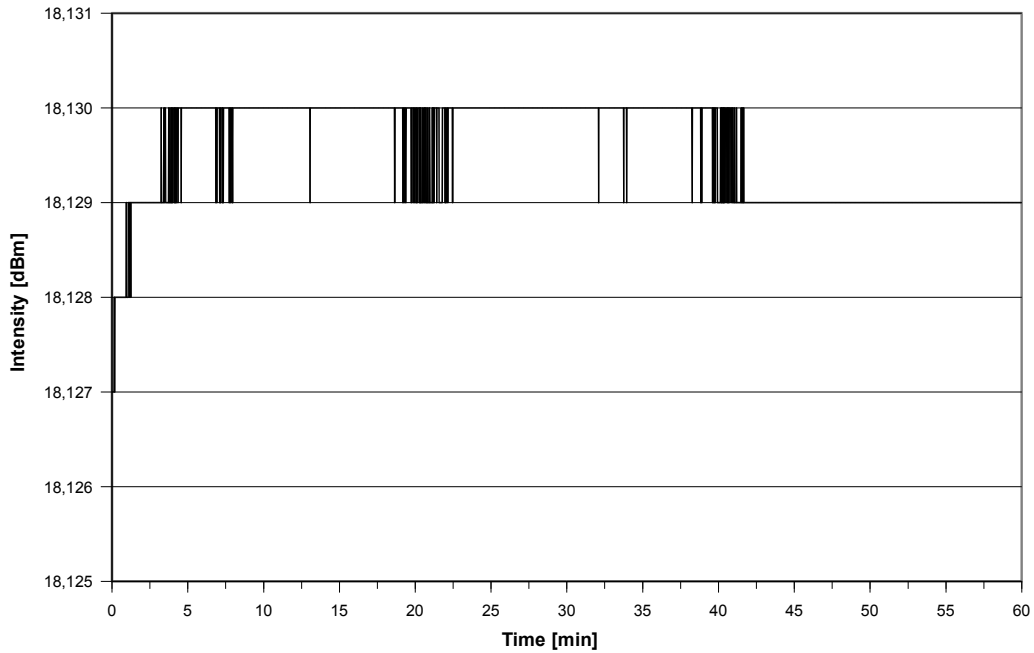
Inspection Report

s/n 11064412020-23

Emission spectrum



Output power stability (after 1 h of warm-up)



Stability: < 3 m dB/15min (after one hour of warm-up time)

Room temperature: 22 °C