

Title (en)

METHOD AND DEVICE FOR DETERMINING THE OUTPUT POWER OF A SEMICONDUCTOR LASER DIODE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DER AUSGANGSLEISTUNG EINER HALBLEITERLASERDIODE

Title (fr)

PROCEDE ET DISPOSITIF POUR DETERMINER LA PUISSANCE DE SORTIE D'UNE DIODE LASER A SEMI-CONDUCTEUR

Publication

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Application

**EP 01962612 A 20010808**

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Abstract (en)

[origin: WO0213340A2] The invention relates to a method and device for determining the output power of a semiconductor laser diode, which is operated with a diode current ( $I_d$ ). According to the invention, a defined measuring current ( $I_m$ ), which is less than the threshold current of the semiconductor laser diode (HLD) is conducted in a conducting direction through the semiconductor laser diode (HLD). The forward voltage ( $U_f$ ) decreasing over the semiconductor laser diode (HLD) is measured, and the temperature of the laser-active region of the semiconductor laser diode (HLD) is determined from the measured forward voltage ( $U_f$ ) by using at least one calibration curve. The invention makes a simple and precise determination of the output voltage possible without requiring an additional measuring device, for example, a monitor diode.

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