
Press release

Freiburg, 04th August 2014

Laser solutions in intra-operative diagnosis

Freiburg, Germany. Emerging from the **ZFSM** Series, **Z-LASER** manufactures an OEM fiber-coupled laser platform for diagnostic and intra-operative medical applications. The platform can be configured for integration into standard and intra-operative diagnostic devices, as well as in surgical and therapeutical equipment.

Z-LASER offers a specific configuration of its ZFSM platform that projects a calibrated matrix in the 780nm wavelength which in turn can provide a defect map of the visualized area. A second configuration of the ZFSM is offered as an RGB module with a miniaturized optical head for intra-operative diagnoses and for highly targeted area illumination applications. Both configurations possess **Z-LASER's** extremely advanced control electronics including first-fault secure protocol and functionally safe, making it ideal for use in the medical product market.

The ZFSM platform satisfies extremely sophisticated requirements: for example, the output power is highly stable; the laser is highly safe to maintain its functionality within medical classification limits; an excellent projected beam quality is also guaranteed. The ZFSM platform meets important laser standards such as IEC-60825:2007 (applies to all laser classes) and IEC 60601-2-22 (class 3R and above).

To meet a wide range of applications, the ZFSM platform can be chosen with any wavelength between the visible (VIS) and the near-infrared (NIR). Whereas a classical laser system provides a single wavelength source, a multi-wavelength configuration is also available in the ZFSM. Different colors can be mixed in the optical output head with the ability to control each wavelength individually. Upon request, the laser can be customized with classical or miniaturized optics, as well as with applications specific dimensions to meet your design needs.

ZFSM – main features:

- Supports laser diodes with red, blue, green, IR up to ca. 50mW (in the projection)
- Variety of fiber lengths available upon request
- Flexible optical configurations, application dependent
- Flexible dimensions of the driver and the optical head
- Analogue and simultaneous TTL modulation up to 200kHz
- Supply voltage: 4.5 to 30VDC, optionally USB-supplied
- Serial Communication Interface: I²C, USB, RS-232, Ethernet optional
- Possibility of cascable design (e.g. ZFSM-RGB configurations)
- Single-mode or multi-mode fibers with FC/PC connector
- Fail-safes built in for medical/critical applications

About **Z-LASER**

Founded in 1985, **Z-LASER** is well-known as a manufacturer of industrial laser systems for manufacturing, machine vision, measurement and medical applications as well as applications in analysis and science. The team has its own large development department that utilizes our expertise in optoelectronics and laser technology to come up with innovative solutions. For more company details see www.z-laser.com.