



Guaranteed Specifications in 24/7 Operation

We follow advanced production processes to guarantee and maintain laser performance throughout different ambient conditions. All our lasers are designed for 24/7 operation under the harshest environments.

1. TURN-KEY

Onefive products are TURN-KEY, maintenance-free, dust sealed and designed for the easiest system integration. Installation is straight forward, it only requires to connect the laser head to the control unit, plug in the power supply, activate the key switch and press the "ON" button. The lasers have no serviceable parts and no adjustment knobs or screws, neither insider nor outside the laser head.

2. MAINTENANCE-FREE

Our lasers are guaranteed to be maintenance free over their entire life-span. No user serviceable parts or components are inside or outside the laser head and laser driver. Lasers cannot and need not to be serviced in the field. No field engineer is needed for installation or handling during laser operation, and no trained personnel is required to operate Onefive lasers.

3. PASSIVE AIR COOLING

All our compact systems are passively air cooled (no water cooling!) and are working with regular 100 – 260 AC supply voltage.

4. LONG LIFETIME

High quality components, advanced engineering, deep know-how, profound testing and strict quality control assure a long product life time under continuous operation and after several on/off cycles.

5. OPERATION TEMPERATURE

We run extensive temperature and humidity tests

with our laser modules during product development. Laser operation is tested between -20 °C and 65 °C ambient temperature with varying relative humidity (0 % - 80 %). The maximum variation of average output power and pulse duration over the entire temperature and humidity range is < 10 % peak-to-peak.

6. PULSED LASER PERFORMANCE

Reliable pulse generation without occasional pulse drop-out or Q-switching instabilities is guaranteed over the entire temperature and humidity range. Pulse quality and pulse parameters are maintained. Operation without spectral mode-hopping is guaranteed over the entire temperature and humidity range.

7. SHOCK AND VIBRATION TESTING

We run extensive shock and vibration tests under laser operation. The lasers are mounted on a shock table and various acceleration schemes are applied to the lasers in the 3 main orthogonal directions, according to IEC 60068-2-27:2008 (shock test proof) and IEC 60068-2-6:2007 (vibration test proof) standards. Note: Pulsed operation might be disturbed during impact of heavy shocks or vibrations. However the lasers will recover fully to normal operation mode within milliseconds again.

