

# 1.55 $\mu\text{m}$ , 50 ps laser SM-1.55-50™



SM-1.55-50™ – series picosecond laser is computer-controlled via RS-232 and DB25 (Type D or Type D1) interfaces. It is capable of operation in burst mode with up to 16 pulses per burst.

## Specifications

<b>Center wavelength</b>	<b>1.55 <math>\mu\text{m}</math></b>
<b>Maximum average power*</b>	<b>2.5 W</b>
<b>Pulse duration</b>	<b>Tunable, 50 ps – 1 ns</b>
<b>Maximum energy per pulse**</b>	<b>20 <math>\mu\text{J}</math> (with shortest pulse)</b>
<b>Burst mode</b>	<b>Tunable 1 – 16 pulses per burst</b>
<b>Burst repetition rate</b>	<b>Tunable 20 kHz – 10 MHz</b>
<b>Pulse repetition rate within burst</b>	<b>10 MHz (tunable via firmware)</b>
<b>Beam delivery</b>	<b>Free space, optically isolated</b>
<b>Output beam diameter (<math>1/e^2</math>)***</b>	<b>1.1 mm</b>
<b>Beam quality</b>	<b><math>M^2 = 1.2</math></b>
<b>Polarization</b>	<b>Randomly polarized</b>
<b>Size</b>	<b>400 × 200 × 150 mm</b>
<b>Weight (with cooler)</b>	<b>8 kg</b>
<b>Power consumption</b>	<b>100 W</b>
<b>Cooling</b>	<b>Air cooled</b>
<b>Operating temperature</b>	<b>10° C - 40° C</b>
<b>Control</b>	<b>RS-232 and DB25 (Type D or Type D1)</b>

\* 2.5 W is the maximum average power given that pulse energy is at or below 20  $\mu\text{J}$ . For example, average power is 2 W for 100 kHz burst rate and 1 pulse per burst or for 50 kHz burst rate and 2 pulses per burst.

\*\* Max. pulse energy of every pulse within the burst, with shortest pulse (50 ps duration). Max energy per burst is 320  $\mu\text{J}$ .

\*\*\* Measured immediately at the output of the laser