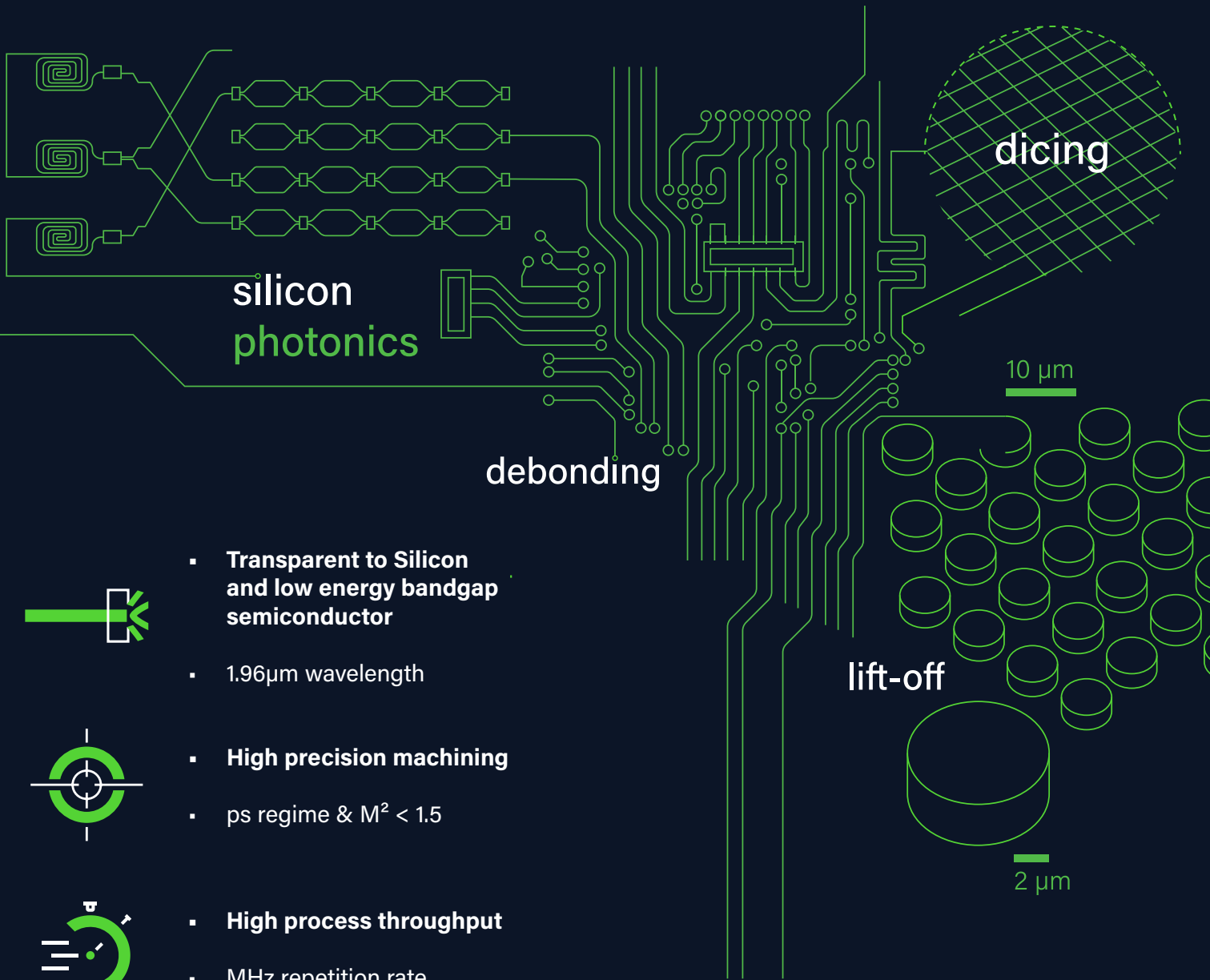


The mid-IR  $\mu$ J class laser

Brevity High Power (BHP) is a turn-key picosecond fiber laser emitting at 1.96  $\mu$ m. The very high peak power associated to the long wavelength allow the use of this laser in a wide range of industrial applications. Taking advantage of semiconductor (silicon) transparency around 2  $\mu$ m, BHP is particularly suited for any application in the filed of microelectronics and display needing to process through the silicon (lift-off, wafer debonding) or in the bulk of a wafer (stealth dicing, waveguide scribing). BHP is then your best candidate when conventional wavelength does not meet your demand!



- **Transparent to Silicon and low energy bandgap semiconductor**



- 1.96 $\mu$ m wavelength
- **High precision machining**
- ps regime &  $M^2 < 1.5$



- **High process throughput**
- MHz repetition rate



- **Rock solid**
- All fiber oscillator and amplifier design

The mid-IR  $\mu$ J class laser

Optical specifications

_____	Central wavelength	<b>1.96 <math>\mu</math>m <math>\pm</math> 20 nm</b>
_____	Average power	<b>&gt; 1 W</b>
_____	Pulse energy (at 100kHz)	<b>&gt; 1 <math>\mu</math>J</b>
_____	Repetition rate	<b>1 MHz* - Burst mode operation compatible</b>
_____	Pulse width	<b>&lt; 2 ps (FWHM assuming sech<sup>2</sup> fit)</b>
_____	Average power stability (RMS over 8 hours)	<b>&lt; 2 %**</b>
_____	Pulse energy stability (RMS over 1000 consecutive shots)	<b>&lt; 2 %</b>
_____	Beam pointing stability	<b>&lt; <math>\pm</math>20 <math>\mu</math>rad/K</b>
_____	Laser output	<b>Collimated</b>
_____	M <sup>2</sup>	<b>&lt; 1.5</b>
_____	Polarization state	<b>Linear (PER &gt; 20dB)</b>

Options / accessories

_____	Process shutter	<b>Pulse on demand operation</b>
_____	Variable attenuator	<b>10 - 100% transmission</b>

Electrical specifications

_____	Operation voltage	<b>100-240 V VAC 50/60Hz</b>
_____	System cooling: water cooling	<b>Water cooling (Water-Air chiller included)</b>
_____	Operating temperature	<b>+20°C to +30°C</b>

\* Lower repetition rate on demand

\*\* Upon stable environmental conditions 21°C  $\pm$  2°C

