

Multi line laser

Cobolt Skyra™

Cobolt proudly introduces the Cobolt Skyra™, a revolutionary multi-line laser platform.

Offering up to 4 laser lines in a box that can fit into the palm of your hand (70 x 134 x 38 mm), requiring no external electronics, the Cobolt Skyra™ will enable the next generation of compact and easy-to-use analytical instrumentation for the life science market.

Cobolt Skyra™ is an extremely compact, permanently aligned, plug & play, multi-line laser with up to 4 laser lines and control electronics integrated into one single, temperature-controlled package, small enough to fit in the palm of your hand!

The laser is built using Cobolt's proprietary HTCure™ manufacturing technology for robustness in a compact, hermetically sealed package. HTCure™ results in an ultra-stable, permanent alignment of optical elements, with very precise and stable overlap of the combined output beams.

The Cobolt Skyra™ is available in a free beam or fiber coupled configuration. It is intended for stand-alone use in laboratory environments or for integration as OEM components in

instruments for applications including biomedical research, fluorescence microscopy, flow cytometry, as an Argon ion replacement in microscopy instrumentation and optogenetics.

- Up to 100 mW of optical power per laser line
- Direct intensity modulation capability
- Combine up to 4 laser lines
- Perfect for Ar+ replacement, [fluorescence microscopy](#), [flow cytometry](#)

Applications

- Fluorescence microscopy
- Optogenetics
- Flow Cytometry
- Biomedical research
- Ar + Ion Replacement

Optical Specifications

Beam diameter at aperture	$700 \pm 100 \mu\text{m}$
Beam symmetry	$> 0.85 : 1$
Beam divergence, full angle	$< 1.8 \text{ mrad}$
Spatial mode (TEM00)	$M^2 < 1.25$

Polarization extinction ratio	> 100:1, vertical
Noise 250 Hz - 2 MHz (rms) *	< 0.3 %
Long-term stability (8 hrs $\pm$ 3°C)	< 3 %
Beam position accuracy	< 0.5 mm
Beam angle accuracy	< 5 mrad
Ambient temperature & pointing (20-50 °C)	< 10 μ rad / °C
Beam position overlap at exit	< 50 μ m
Beam-to-beam angle deviation	< 250 μ rad