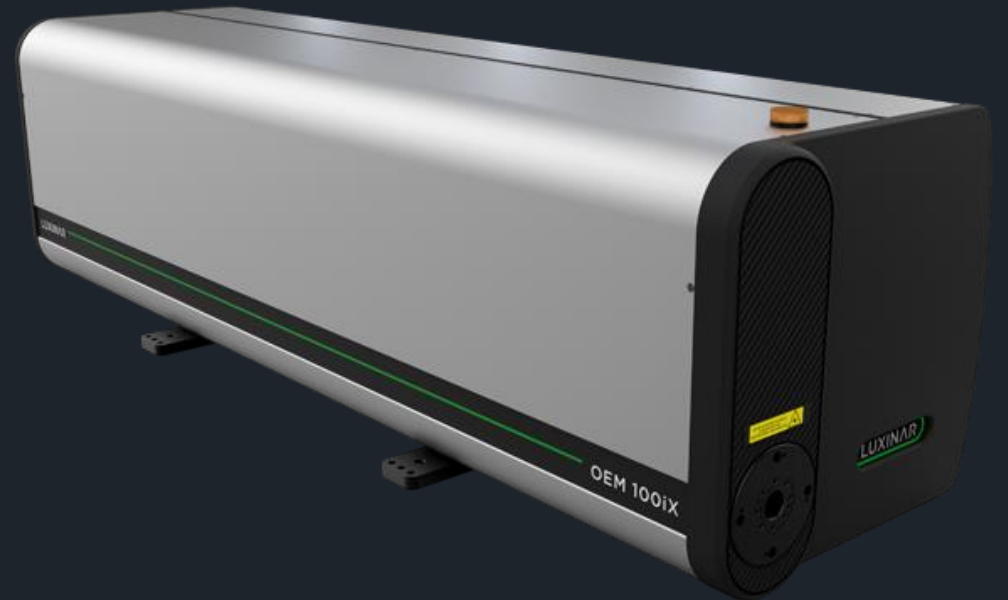


OEM 100iX CO₂ laser:

Added power with control

Dr Gavin Markillie

Technology Stream Manager – CO₂ lasers



Contents

- About us
- OEM 100iX
 - Introduction
 - Power stability
 - Wavelength and polarisation purity
 - Mode quality
 - Applications
 - Summary
- Contact us

About us



We are Luxinar



18000+

Lasers installed around the world



7500

Square meters of manufacturing space

20



Years of experience in CO₂ laser technology



12

Product ranges of sealed CO₂ laser sources

160+

Employees worldwide



6

Sales & service centres globally

100+



Countries where our lasers are installed



IP66 Rating

Against dust & water (most lasers)

ISO 9001:2015

Quality management accreditation



9-11 μm

Wavelengths in our range



10



Working days to return your processed samples

1200

Characters per second are laser marked by MULTISCAN

Follow us on



www.luxinar.com/contact

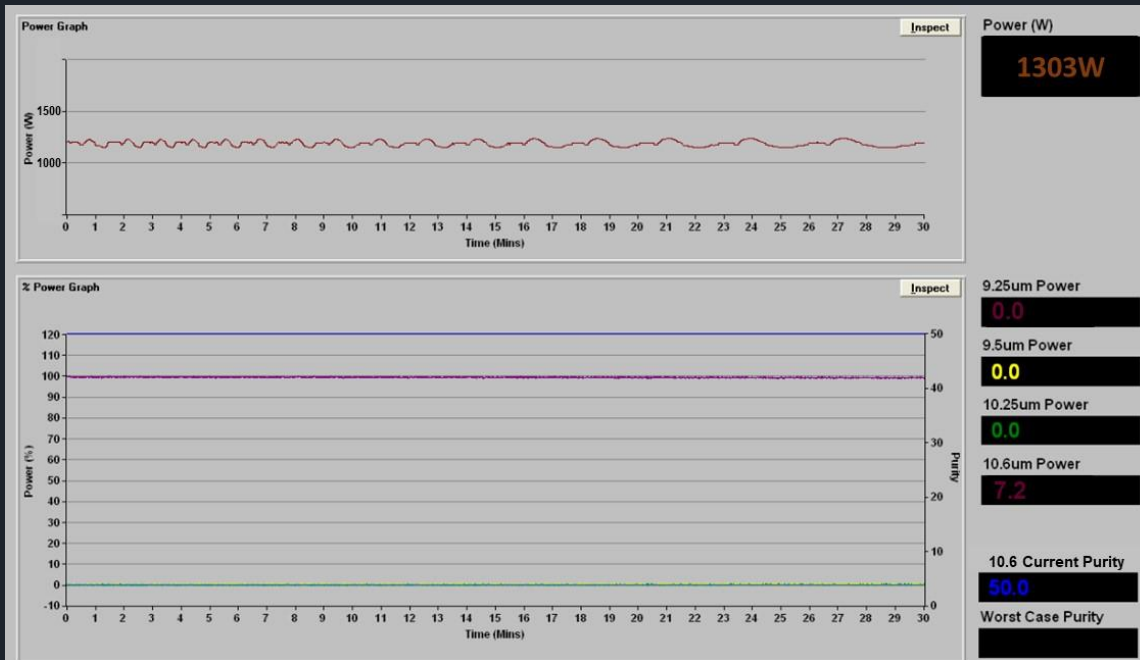


info@luxinar.com

An Introduction to OEM 100iX

- The OEM 100iX is an extension of the OEM range of CO₂ lasers to **1000W** rated power
- Able to work over a wide range of pulse widths and frequencies, including safe operation through the acoustic regions
- Power loop control as standard
- Fully sealed IP66 beam delivery and RF power supply
- An integrated RF power supply that is both detachable and also fully serviceable in the field
- Can be installed in confined spaces in any orientation
- To operate over a broad range of coolant temperatures

Wavelength purity



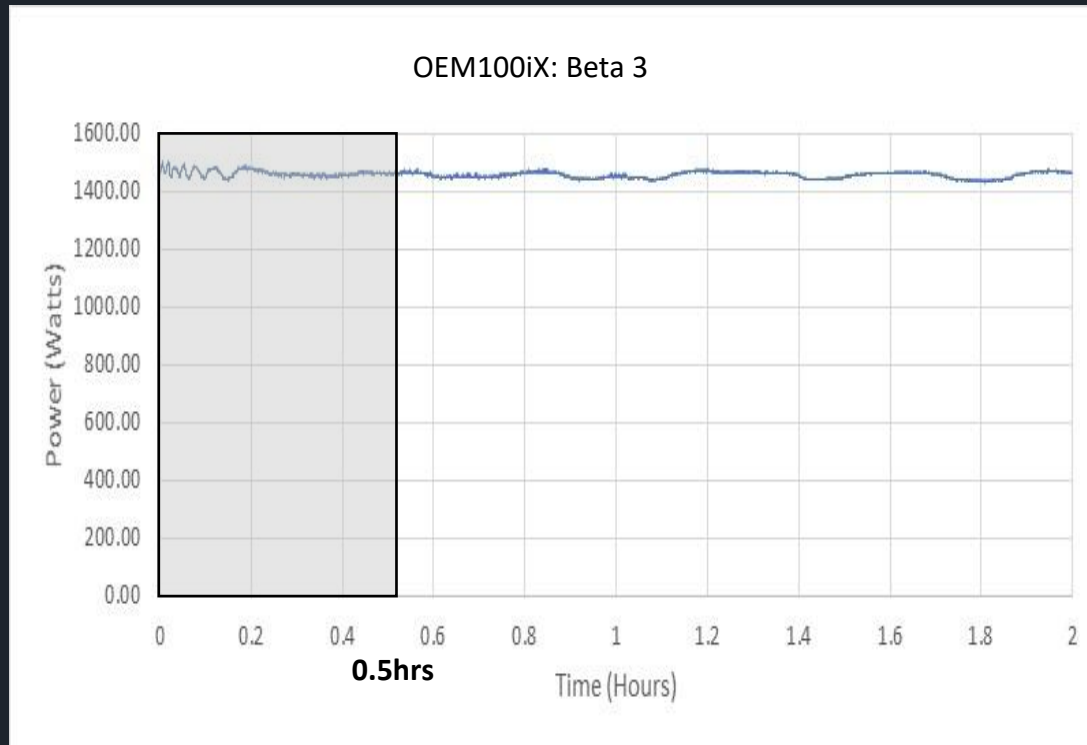
Polarisation purity



- Purity in 10P branch (10.6um ± 0.125) ≥ 50:1 measured

- Purity ≥ 500:1 calculated

Power stability open loop



- Typically +/- 3%

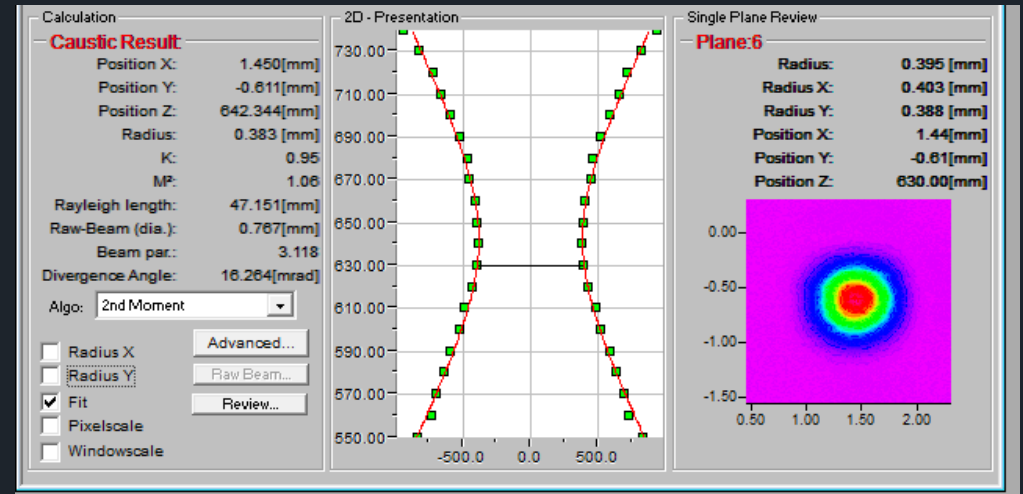
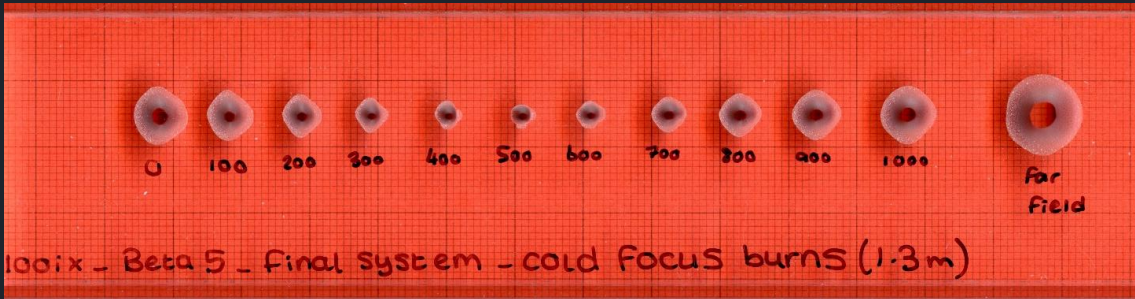
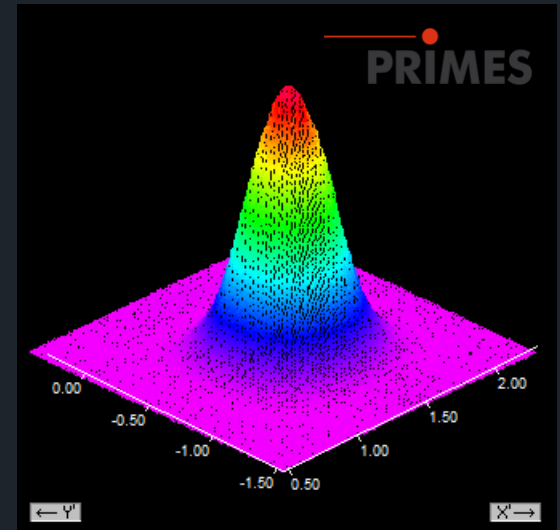
Power stability closed loop



- Typically +/- 1% at rated power

Mode quality

- Beam quality, $M^2 < 1.15$
- Ellipticity $< 1.1: 1$





Applications for OEM 100iX

OEM 100iX is designed to address a wide range of applications, including high volume cutting, kiss-cutting, and scoring for the packaging industry. Other targeted industries are: robotics - automobile, textile – multi-ply cutting and die board cutting to mention just a few. A combination of high power, excellent beam quality, narrow wavelength (0.25 μ m) and typical power stability (\pm 3% Open loop, \pm 1% Closed loop) is aimed at providing high process speeds and repeatability.



A summary of OEM 100iX

- 1200W minimum shipment power
- Typical shipment power 1330W
- Typical open loop power stability of $\pm 3\%$
- Typical closed loop power stability of $\pm 1\%$
- Wavelength operation confined to 10.45 to 10.7 μm (important to many applications)
- Peak powers exceeding 2.52kW
- Single shot to 130kHz operation
- Maximum duty cycle of 60%
- Future wavelength options at 10.25 μm and 9.3 μm
- RF power supply operating with enhanced reliability Freescale technology

Contact us

Luxinar Ltd

Meadow Road

Bridgehead Business Park

HU13 0DG, Kingston upon Hull, UK

T: +44 (0)1482 650088

yannick.galais@luxinar.com

www.luxinar.com/contact

