

# Peacock XT-355 MW

**Integrated, High-Repetition Rate, Tunable Laser-OPO System**



The **Peacock XT-355 MW** extends our all-integrated Laser-OPO series by high-repetition rate devices. The diode pumped solid state (DPSS) laser source is available from **50 Hz to 200 Hz**, providing high average power with **high energy nanosecond pulses** with continuous **VIS to Mid-IR wavelength coverage**. Our new and unique automated tuning offers **fast shot-to-shot wavelength switching** across the entire tuning range. **Energy measurement and attenuation** as well as **fiber-coupling** capability are integral parts of the Peacock XT series. Our robust all-solid-state technology provides intuitive features and interfaces that allow for easy **OEM machine integration** as well as for convenient usage in **research labs**. The rugged and turn-key design, paired with an intuitive GUI and programming interface, ensure convenient usability and best reliability.

The Peacock XT consists a 355 nm pumped **Laser-OPO package**, **seamlessly integrating** Quantel's Merion MW DPSS laser series. Nanosecond pulses with a **peak energy of up to 65 mJ** in the **405 nm to 2850 nm** wavelength range at 50 Hz, 100 Hz or 200 Hz are available.

The PEACOCK series tunable Lasers are joint products of **GWU-Lasertechnik** and **Quantel Lasers by Lumibird**, combining decades of experience in Lasers and nonlinear optics.

## Peacock XT-355 MW Specification

	Peacock XT-355					
	MW7-100/BB	MW7-200/BB	MW9-50/BB	MW7-100/MB	MW7-200/MB	MW9-50/MB
Repetition Rate [Hz]	100	200	50	100	200	50
Output Energy [mJ] <sup>(1)</sup>	27 <sup>(1)</sup>	15 <sup>(1)</sup>	65 <sup>(1)</sup>	24 <sup>(2)</sup>	13 <sup>(2)</sup>	60 <sup>(2)</sup>
Beam Diameter at Exit Aperture [mm]	< 7		< 9.5		< 9.5	
Tuning Range Signal Wave [nm]	405 – 680			405 - 2850		
Tuning Range Idler Wave [nm]	740 - 2650					
Linewidth	< 0.3 – 15 nm <sup>(3)</sup>			< 4.5 cm <sup>-1</sup>		
Divergence (hor. / vert.) <sup>(4)</sup>	<8 mrad / < 10 mrad			< 6 mrad / < 1.5 mrad		
OPO Pulse Width	< 7 ns					

<sup>(1)</sup>: Peak at 450 nm ± 10 nm

<sup>(2)</sup>: Peak at 425 nm ± 10 nm

<sup>(3)</sup>: Depends on wavelength

<sup>(4)</sup>: Full angle, at FWHM

## Features and Benefits

All integrated Laser-OPO platform

Fast, shot-to-shot wavelength tuning

Real-time OPO energy signals

Fully automated for hands-free operation

Fiber-delivery or free-space output

Integrated wavelength measurement

Soft pumping scheme for high reliability and long lifetime

## Applications

Medical & Biotechnology  
Photoacoustic Imaging  
Spectroscopy  
Remote Sensing  
LIDAR

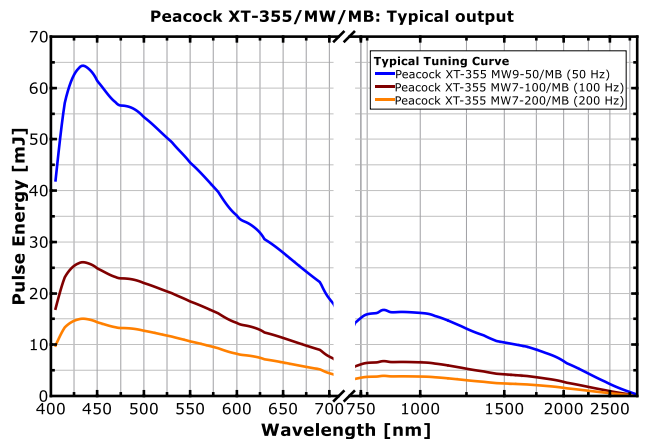
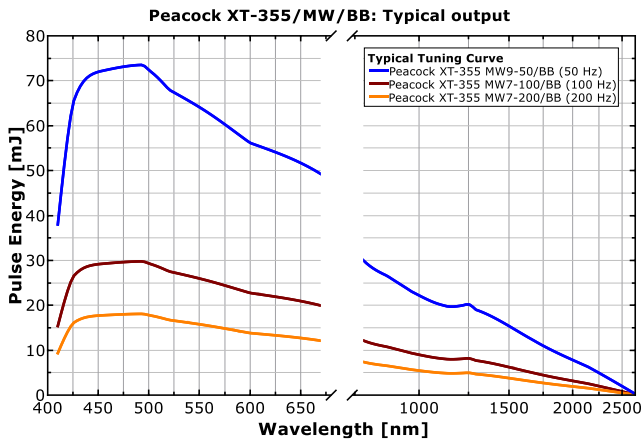
## Notes

All specifications are subject to change without notice. The Peacock is a joint product of GWU-Lasertechnik and Quantel by Lumibird.



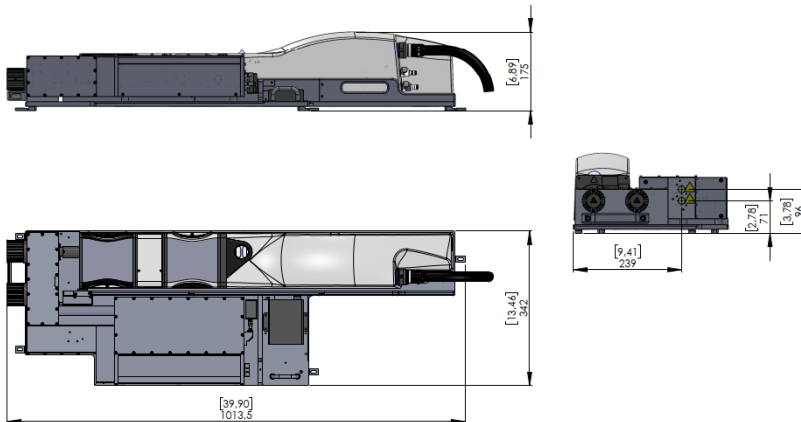
# Peacock XT-355 MW Performance

Typical performance, not a guaranteed or warranted specification

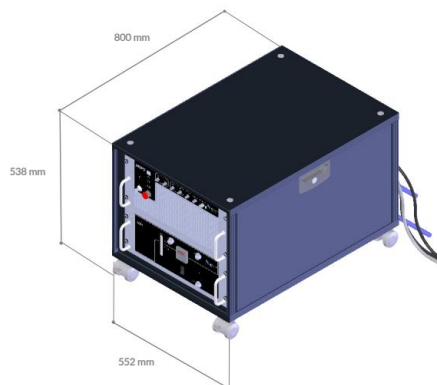


## Peacock XT-355 MW Dimensions

### Laser Head



### Electronics



## Mechanical + Utilities

Size OPO body  
(L x W x H):  
950 x 342 x 175 mm<sup>3</sup>

For dimensions with feet,  
and other protruding  
elements please refer to  
the dimensional drawing

Electric requirements  
Power supply: 200-240  
VAC, 50/60 Hz, 1600 VA.  
Cooling group: 200-240  
VAC, 50/60 Hz, 2200 VA.

Cooling: water to water

Cable Length: 3 m

Diode Warranty:  
5 billion shots

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