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Superior reliability & performance

New Chameleon VISION and New Chameleon Portfolio for MPE Microscopy



September 2008

Introducing the NEW Chameleon VISION

Expanding the Frontiers of MPE Solutions

The new **Chameleon? Vision** from Coherent Inc. (Santa Clara, CA) (Nasdaq: COHR) is a fully-integrated laser source for Multiphoton Excitation (MPE) microscopy that delivers both state-of-the-art image quality and superior ease of use. This is achieved because the **Chameleon Vision** combines the **widest tuning range**, the **highest group velocity dispersion (GVD) compensation**, the **highest power**, **excellent pointing stability**, and the **smallest footprint** of any true one-box MPE light source.

In particular, the high (47,000 fs²) GVD compensation means the Chameleon Vision can correct for the large GVD found in microscopes with many highly dispersive elements. Plus, the GVD compensation is fully adjustable across the entire dynamic range, even to zero, for maximum flexibility. Versatility is further enhanced by the **extended wavelength tuning range (680 to 1080 nm)**, which enables optimum excitation of **red fluorophores** such as **m-cherry**. And the **high output power** (greater than 2.5 Watts) means the laser output can be optimized for both shallow and deep tissue imaging.

The Chameleon Vision is intended to maximize the potential of multiphoton microscopy techniques.

New Chameleon Portfolio

Since the introduction of **Chameleon** in 2002, Coherent is committed to MPE (**M**ulti-**P**hoton **E**xcitation). Today it's our mission to expand the frontiers of your MPE research by launching the industries broadest MPE solutions portfolio - a portfolio with capabilities that are many steps ahead of the competition.

Three versions of the **Chameleon Ultra** and **two version of Chameleon Vision** one box Ti:Sapphire oscillator are available. Each version features different power levels and tuning ranges, yet share the design benefits of a robust opto-mechanical design and a sophisticated, yet simple to use interface for ultimate control of the laser.

Specifications	Chameleon Ultra	Chameleon Ultra I	Chameleon Ultra II	Chameleon PreComp	Chameleon Vision I	Chameleon Vision II
Output Power (W)	>2.5	>2.9	>3.3	90% Transmission Matches any Chameleon	>2.1	>2.5
Tuning Range (nm)	690 - 1020	690-1040	680-1080	Ultra version Matches any Chameleon	690-1040	680-1080
Pre-compensation	Optional	Optional	Optional	Ultra version	Integrated	Integrated



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(w/external Chameleon

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PreComp)

PreComp)

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Note: Chameleon Ultra lasers feature a pulsewidth that is optimum to minimize pulse broadening for the majority of microscope setups.

All Coherent Chameleon lasers also feature high reliability and hands-free, sealed operation, in part due to their use of the long-lived **Verdi?** pump laser.

Moreover all versions are available for expansion with our **Chameleon OPO** (IR wavelength extension).

The new Chameleon Ultra Family **Chameleon OPO** laser enables gap-free tuning across the entire 680-1580 nm range making it the ideal ultrafast laser source for deep tissue imaging in the critical long wavelength. This wavelength is optimum for exciting long wavelength fluorophores and minimizing scatter, enabling thicker samples - including live tissue - to be imaged using MPE (multiphoton excitation) microscopy.

You will find the Data Sheets herewith attached.

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About Coherent, Inc.

Founded in 1966, Coherent, Inc. is a Standard & Poor's SmallCap 600 company and a world leader in providing laser-based solutions to the commercial and scientific research markets. To find out more about Coherent, visit our website at www.coherent.com.

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