

## Worldwide Distributors

### China

#### Pinnacle Scientific Corporation

3/F, General Building  
No.6 West Zone 8th Road  
Sandun West Lake Science & Technology  
Economic Park  
Hangzhou, 310030

Tel: +86-571-88225151  
Fax: +86-571-88225252

sales@psci.cn  
www.psci.cn

### France

#### Photon Lines

30 Avenue de l'Amiral Lemonnier, BP 51  
F-78164 Marly-le-Roi Cedex

Tel.: +33-1-30 08 99 00  
Fax: +33-1-30 08 99 09

infos@photonlines.com  
www.photonlines.fr

### Italy

#### LOT-Oriel Italia

Via Costa, 31  
20131 Milano

Tel: +39-2-26822104  
Fax: +39-2-26825007

info@lot-oriel.it  
www.lot-oriel.it

### Japan

#### Japan Laser Corp.

2-14-1, Nishiwaseda,  
Shinjyuku-ku,  
Tokyo, 169-0051

Tel.: +81-3-5285-08 61  
Fax: +81-3-5285-08 60

lase@japanlaser.jp  
www.japanlaser.jp

### Korea

#### DongWoo Optron Co., Ltd.

611-5, MaeSan-Ri, Opo-Eup  
464-893 Kwangju-Si, Kyunggi-Do

Tel.: +82-31-7 65-03 00  
Fax: +82-31-7 65-02 22

optron@optron.co.kr  
www.optron.co.kr

### Spain

#### LASER Technology S.L.

Polig. " La Baileta " Can Xinxa  
Calle B - Nave 8  
08348 Cabrils - Barcelona

Tel.: +34-93-7 50 01 21  
Fax: +34-93-7 50 03 23

josecochon@laser-technology.com  
www.laser-technology.com

### Taiwan

#### Tayhwa Technology Co. Ltd.

9F, No. 73 , Sec. 1  
Ho Ping E. Rd.  
Taipei City 106

Tel: +886-2-2356-9737  
Fax: +886-2-2356-9659

e-mail: tayhwa@tayhwa.com.tw  
web: www.tayhwa.com.tw

### Turkey

#### MITRA ANONIM SIRKETI

Bestekar Sevki Bey Sokak No: 20-1  
Balmumcu - 34349 Istanbul

Tel.: +90-212-347 47 40  
Fax: +90-212-347 47 45

omerbozoglu@mitra.com.tr  
teknofil@mitra.com.tr  
www.mitra.com.tr

### UK

#### Photon Lines Ltd

Bloxham Mill  
Barford Road  
Bloxham, Banbury  
Oxfordshire OX15 4FF

Tel.: +44-1295-72 42 25  
Fax: +44-1295-72 42 26

info-uk@photonlines.com  
www.photonlines.com

### USA

#### Market Tech, Inc.

P.O. Box 67037  
Scotts Valley,  
CA 95067-7037

Tel.: +1-800-326-5714  
Fax: +1-831-461-1136

info@markettechinc.net  
www.markettechinc.net

### Israel

#### Militram

87 Harav Kook St.  
Herzliya, 46503

Tel.: +972 9 958 1860  
Fax: +972 9 957 4383

www.militram.com  
militram@militram.com



Omicron-Laserage Laserprodukte GmbH  
Raiffeisenstrasse 5e  
63110 Rodgau, Germany  
Tel: +49-61 06-82 24-0  
Fax: +49-61 06-82 24-10  
www.omicron-laser.de  
mail@omicron-laser.de

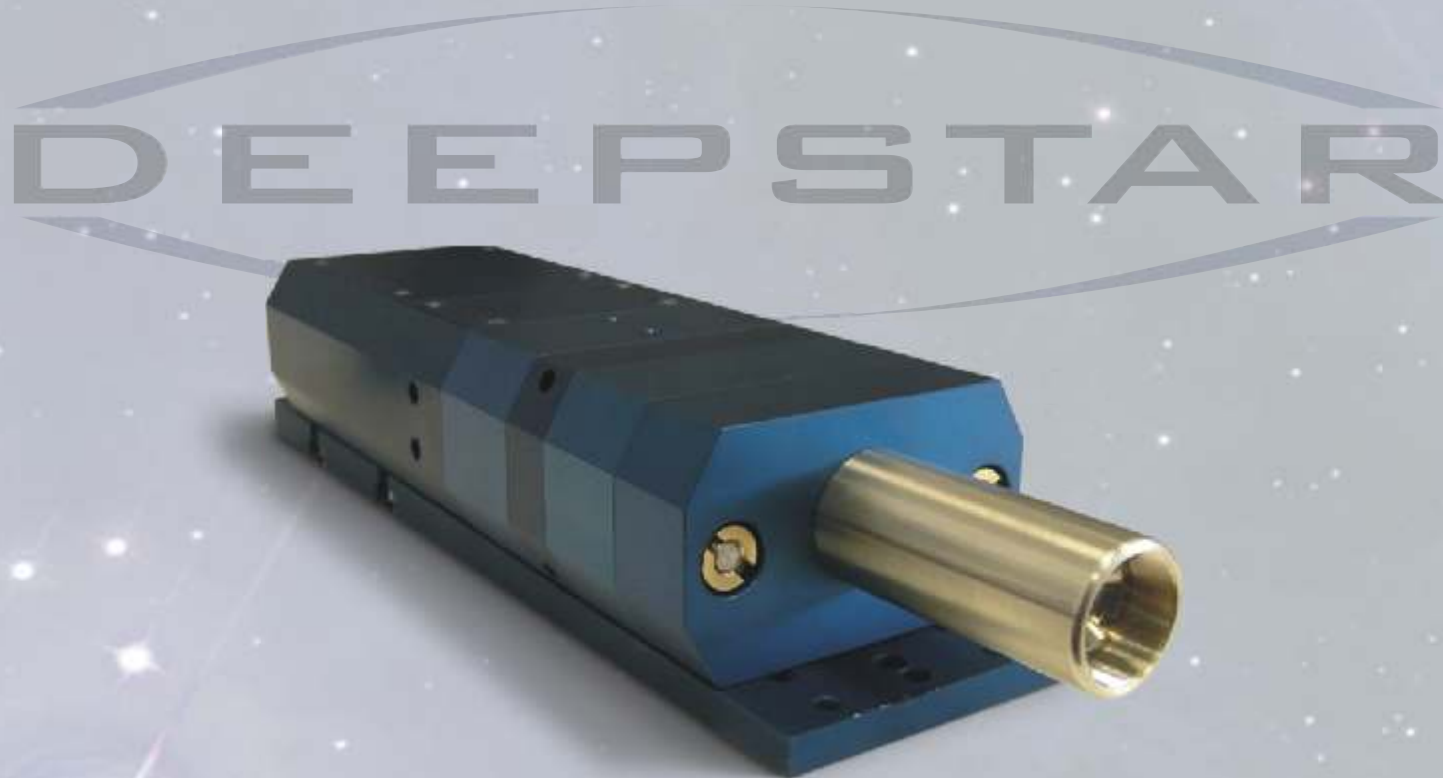
There 's a name for  
**real 100 % Modulation**  
**Omicrons Deepstar® Laser Diode Module**



## Diode Lasers with High-Speed modulation and 100% modulation depth

Omicron's **DEEPSTAR**® temperature stabilised diode lasers of the LDM-Series offer high-speed modulation up to 100 MHz and real 100% modulation depth.

For the first time, the **DEEPSTAR**® analogue and digital modulated laser diode modules offer a real 100% modulation depth of >>2.500.000:1. Especially developed for fluorescence excitation and all other applications where absolutely no remaining light is allowed in "modulation zero"-state, these lasers are the ideal light source for e.g. Confocal Laser Scanning Microscopy and Flow Cytometry. With their "ultra-deep" analogue modulation of more than 15 MHz and digital modulation of more than 150 MHz and with rise- and falltimes of below two nanoseconds, these lasers are suitable for high-speed applications that were formerly only possible by using CW lasers and AO-modulators. The lasers offer an RS-232 interface for laser control and an industrial standard supply voltage of 24VDC. The analog and digital signal inputs can be configured in voltage and impedance, so adaption to existing signal sources can be done easily. The modular principle of the LDM Series laserheads offers a lot of options like single-mode fiber coupling with an efficiency of upto 75%, collimation optics for 1 to 15mm beam diameter, focussing objectives down to below one micron and many more.



### Specifications TA Deepstar®-Models

|   | Bluephoton® TA Deepstar®  | Redphoton® TA Deepstar®   |
|---|---|---|
| Wavelengths & Powers<br>(other wavelengths and powers on request) | <b>Single-Mode (SM):</b><br>375nm / 20mW<br>405nm / 55mW<br>405nm / 120mW<br>445nm / 50mW<br>473nm / 20mW<br>488nm / 20mW<br><b>Multi-Mode (MM):</b><br>405nm / 400mW (M <sup>2</sup> <6)<br>445nm / 500mW (M <sup>2</sup> <3)                  | <b>Single-Mode (SM):</b><br>635nm / 5mW<br>639nm / 40mW<br>643nm / 150mW<br>658nm / 130mW<br>670nm / 15mW<br>685nm / 35mW<br>705nm / 40mW<br>730nm / 40mW<br>785nm / 120mW<br>808nm / 200mW<br>830nm / 200mW<br>852nm / 150mW<br>980nm / 150mW<br>1016nm / 100mW<br>1060nm / 100mW<br><b>Multi-Mode (MM):</b><br>638nm / 250mW<br>and much more |
| Beam diameter<br>(other diameters on request)                     | 1.25mm (1/e <sup>2</sup> ) +/- 0.25mm<br>(MM beam diameter may vary)  | 1.25mm (1/e <sup>2</sup> ) +/- 0.25mm<br>(MM beam diameter may vary)  |
| Beam quality M <sup>2</sup>                                       | < 1.2 (SM)<br>< 6 (MM)  | < 1.2 (SM)<br>< 6 (MM)  |
| Astigmatism (corrected)   | < 0.2*ZR  | < 0.2*ZR  |
| Beam ellipticity  | < 1.1:1 (SM)  | < 1.1:1 (SM)  |
| Polarisation  | > 100:1 vertical  | > 100:1 vertical  |
| Power stability   | < 0.5% / h  | < 0.5% / h  |
| Noise 0Hz-100MHz  | < 0.5% peak < > peak (CW)   | < 0.5% peak < > peak (CW)   |
| Modulation speed  | Analog: up to 15MHz @ -3dB<br>Digital: > 150MHz   |   |
| Modulation input signals  | Analog: 0...1V / 50 Ohm (15MHz) or<br>Analog: 0...5V / 10 kOhm (>5MHz)<br>Digital: 0...1V / 50 Ohm with prog. Trigger-Level (>150MHz) or<br>Digital: 0...5V / 200 Ohm with prog. Trigger-Level (>100MHz)  |   |
| Rise- and falltime  | Analog: < 25ns<br>Digital: < 1ns  |   |
| Modulation depth  | > 2.500.000:1   |   |
| Supply voltage  | 24VDC, 2 Amp.   |   |
| Features  | Safety- Interlock<br>RS-232 Interface   |   |
| Options   | LDM.COL - collimator objective<br>LDM.FOC - customized focussing objective<br>LDM.FASY.XXX - fibre coupling unit<br>LDM.AAC - Automatic Aging Compensation<br>LDM.24VPSU - worldwide power supply unit<br>LDM.MON - high-speed light monitoring |   |