

LDM Series Modulated Lasers

150 / 500 - Modulated Lasers
with >150 / >500MHz Digital
Modulation Speed



Bluephoton® 150/500 Redphoton® 150/500

Wavelengths & Powers
(other wavelengths and powers on
request)

Beam diameter
(other diameters on request)

Beam quality M²

Astigmatism (corrected)

Beam ellipticity

Polarisation

Power stability

Noise 0Hz-100MHz

Modulation speed

Modulation input signals

Rise- and falltime

Extinction ratio

Supply voltage

Features

Options

Single-Mode (SM):
375nm / 20mW
405nm / 55mW
405nm / 120mW
445nm / 50mW
473nm / 20mW
488nm / 20mW
Multi-Mode (MM):
405nm / 400mW (M² <6)
445nm / 500mW (M² <3)

1.25mm (1/e²) +/- 0.25mm
(MM beam diameter may vary)

<1.2 (SM)
<6 (MM)

<0.2*ZR

<1.1:1 (SM)

>100:1 vertical

<0.5% / h

<0.5% peak<>peak (CW)

Analog: 1MHz
Digital: >150MHz (150 Mod.)
Digital: >500MHz (500 Mod.)

Analog: 0...5V -> 0...100%
Digital: TTL, PECL
LV-TTL or LVDS on request

< 1ns

>250 : 1

24 VDC, 2 Amp.

Safety-Interlock
RS-232 interface

LDM.COL - collimator objective
LDM.FOC - customized focussing objective
LDM.FASY.XXX - fibre coupling unit
LDM.AAC - Automatic Aging Compensation
LDM.24VPSU - worldwide power supply unit
LDM.MON - high-speed light monitoring

Single-Mode (SM):
635nm / 5mW
639nm / 40mW
643nm / 150mW
658nm / 130mW
670nm / 15mW
685nm / 35mW
785nm / 120mW
808nm / 200mW
830nm / 200mW
852nm / 150mW
980nm / 150mW
1016nm / 100mW
1060nm / 100mW
Multi-Mode (MM):
638nm / 250mW
and much more

1.25mm (1/e²) +/- 0.25mm
(MM beam diameter may vary)

<1.2 (SM)
<6 (MM)

<0.2*ZR

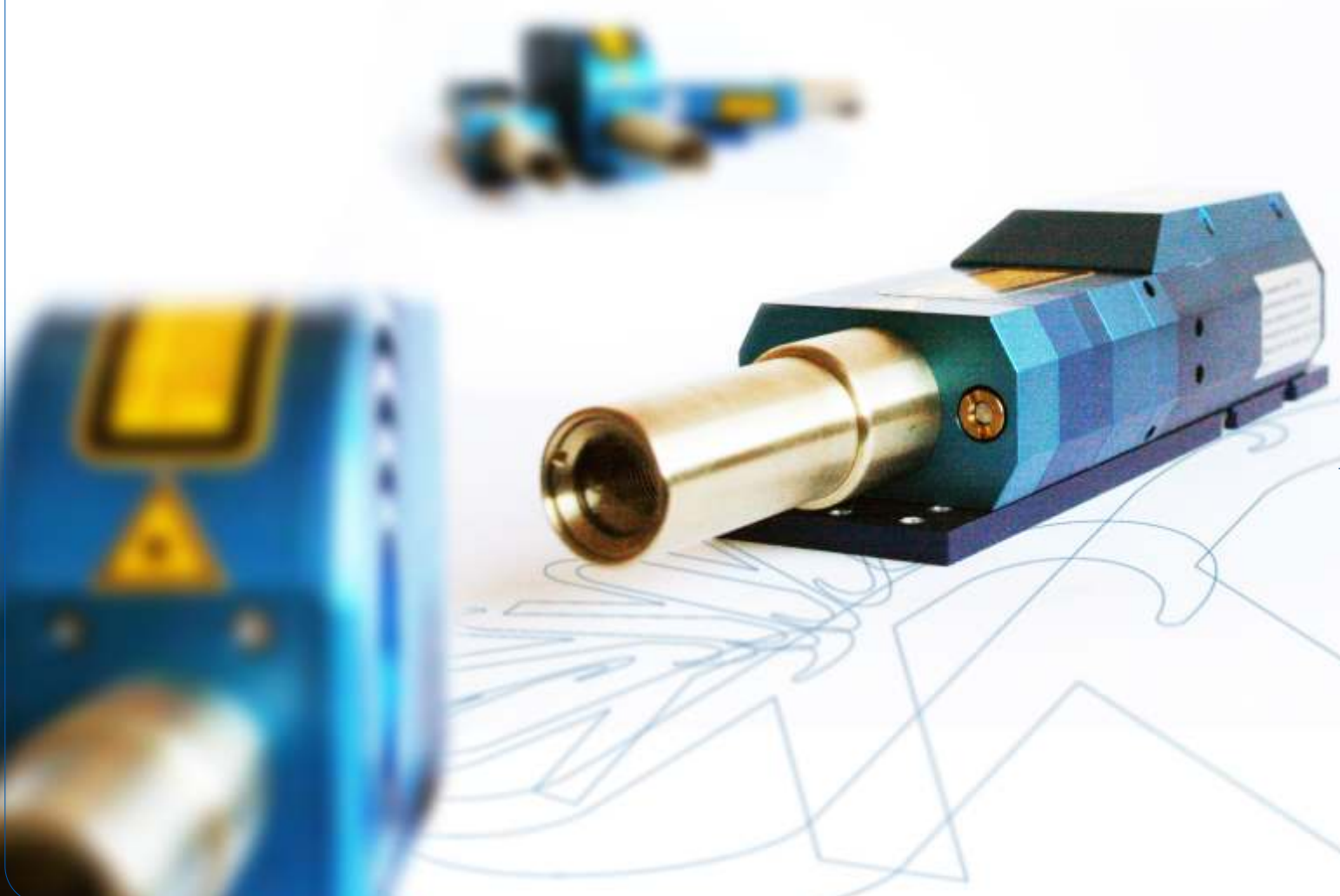
<1.1:1 (SM)

>100:1 vertical

<0.5% / h

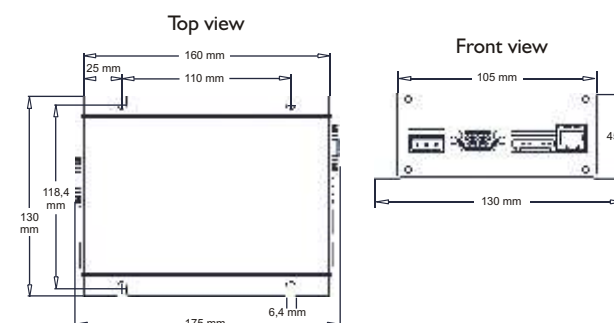
<0.5% peak<>peak (CW)

MORE

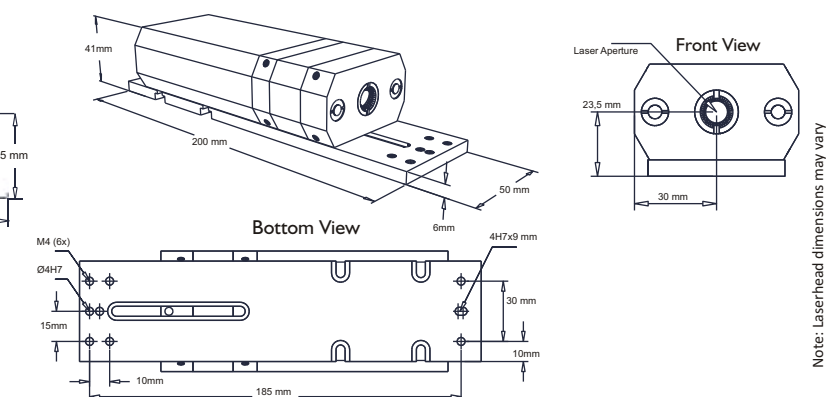


LDM □□□□ . □□□ . □□□ . □
Wavelength in nm Power in mW Model 150 or 500 (in MHz) M=Multi-Mode

150/500 Controller



150/500 Laserhead



Note: Laserhead dimensions may vary

TA Deepstar® - Diode Lasers with Infinite Modulation Depth

Wavelengths & Powers
(other wavelengths and powers on request)

Bluephoton® TA

Single-Mode (SM):
375nm / 20mW
405nm / 55mW
405nm / 120mW
445nm / 50mW
473nm / 20mW
488nm / 20mW
Multi-Mode (MM):
405nm / 400mW (M² <6)
445nm / 500mW (M² <3)

Beam diameter
(other diameters on request)

1.25mm (1/e²) +/- 0.25mm
(MM beam diameter may vary)

Beam quality M²

< 1.2 (SM)
< 6 (MM)

Astigmatism (corrected)

< 0.2*ZR

Beam ellipticity

< 1.1:1 (SM)

Polarisation

> 100:1 vertical

Power stability

< 0.5% / h

Noise 0Hz-100MHz

< 0.5% peak <> peak (CW)

Modulation speed

Analog: up to 15MHz @ -3dB
Digital: > 150MHz

Modulation input signals

Analog: 0...1V / 50 Ohm (15MHz) or
Analog: 0...5V / 10 kOhm (>5MHz)
Digital: 0...1V / 50 Ohm with prog. Trigger-Level (> 150MHz) or
Digital: 0...5V / 200 Ohm with prog. Trigger-Level (> 100MHz)

Rise- and falltime

Analog: < 25ns
Digital: < 1ns

Modulation depth

> 2.500.000:1

Supply voltage

24VDC, 2 Amp.

Features

Safety- Interlock
RS-232 Interface

Options

LDM.COL - collimator objective
LDM.FOC - customized focussing objective
LDM.FASY.XXX - fibre coupling unit
LDM.AAC - Automatic Aging Compensation
LDM.24VPSU - worldwide power supply unit
LDM.MON - high-speed light monitoring

Redphoton® TA

Single-Mode (SM):
635nm / 5mW
639nm / 40mW
643nm / 150mW
658nm / 130mW
670nm / 15mW
685nm / 35mW
705nm / 40mW
730nm / 40mW
785nm / 120mW
808nm / 200mW
830nm / 200mW
852nm / 150mW
980nm / 150mW
1016nm / 100mW
1060nm / 100mW
Multi-Mode (MM):
638nm / 250mW
and much more

1.25mm (1/e²) +/- 0.25mm
(MM beam diameter may vary)

< 1.2 (SM)
< 6 (MM)

< 0.2*ZR

< 1.1:1 (SM)

> 100:1 vertical

< 0.5% / h

< 0.5% peak <> peak (CW)

Wavelengths & Powers
(other wavelengths and powers on request)

Bluephoton® DC180 Redphoton® DC180

Single-Mode (SM):
375nm / 20mW
405nm / 55mW
405nm / 120mW
445nm / 50mW
473nm / 20mW
488nm / 20mW
Multi-Mode (MM):
405nm / 400mW (M² <6)
445nm / 500mW (M² <3)

Beam diameter
(other diameters on request)

1.25mm (1/e²) +/- 0.25mm
(MM beam diameter may vary)

Beam quality M²

< 1.2 (SM)
< 6 (MM)

Astigmatism (corrected)

< 0.2*ZR

Beam ellipticity

< 1.1:1 (SM)

Polarisation

> 100:1 vertical

Power stability

< 0.5% / h

Noise 0Hz-100MHz

< 0.5% peak <> peak
(CW)

Modulation speed

2x Analog: 1MHz
2x Digital > 180MHz

Modulation input signals

Analog: 0...5V -> 0...100%
Digital: 0...1V / 50 Ohm with programmable trigger-level

Rise- and falltime

< 1ns

Extinction ratio

> 250 : 1

Supply voltage

85-245VAC, 50/60Hz

Features

Safety-Interlock
RS-232 interface

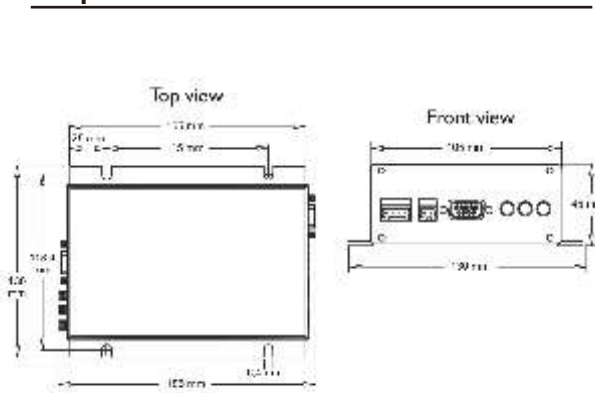
Options

LDM.COL - collimator objective
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LDM.FASY.XXX - fibre coupling unit
LDM.AAC - Automatic Aging Compensation
LDM.MON - high-speed light monitoring

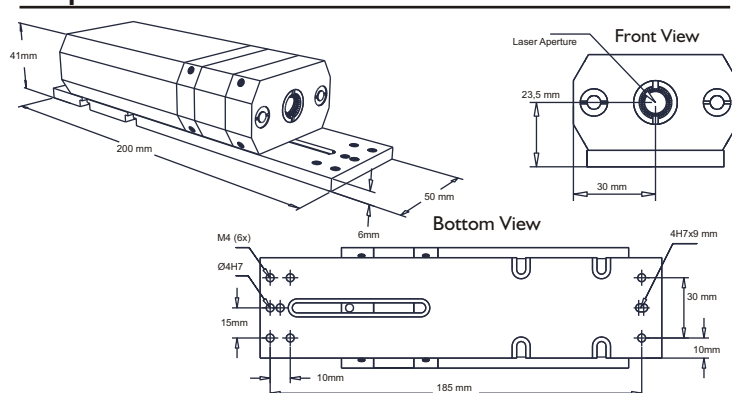
LDM□□□□.□□□□.DC180.□
Wavelength in nm Power in mW M=Multi-Mode

LDM□□□□.□□□□.TA.□
Wavelength in nm Power in mW M=Multi-Mode

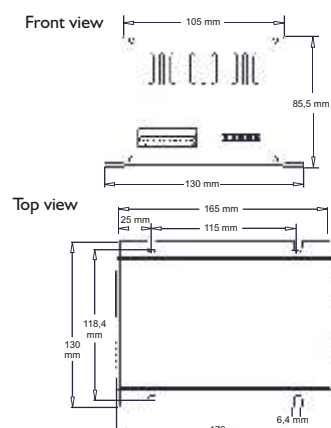
Deepstar® Controller



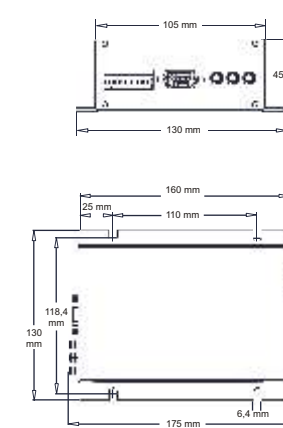
Deepstar® Laserhead



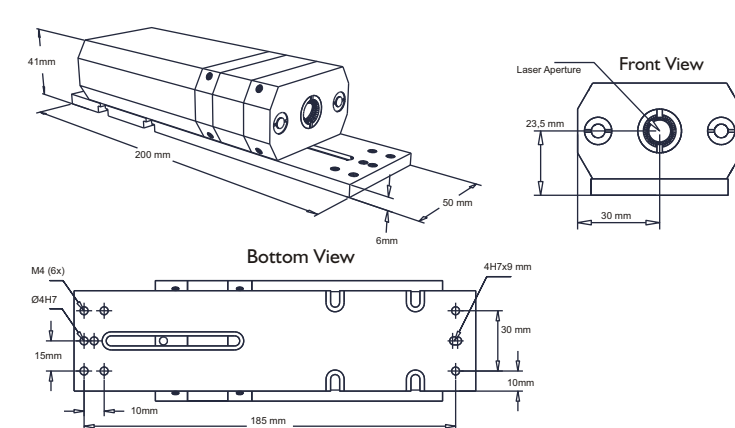
DC180 PSU



DC180 Controller



DC180 Laserhead



Note: Laserhead dimensions may vary

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BACK MORE

PS350 - PulseShaping High Speed Modulated Diode Lasers with Programmable Pulse-Shaping



A350 - High Speed analogue modulated laser diode modules with up to 350MHz@-3dB



Bluephoton® PS350 Redphoton® PS350

Wavelengths & Powers
(other wavelengths and powers on request)

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Astigmatism (corrected)

< 0.2*ZR

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Beam ellipticity

< 1.1:1 (SM)

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Polarisation

> 100:1 vertical

> 100:1 vertical

Power stability

< 0.5% / h

< 0.5% / h

Noise 0Hz-100MHz

< 0.5% peak <> peak (CW)

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Modulation speed

Analog: peak power control with 1.5Hz bandwidth
Digital: > 350MHz

Analog: peak power control with 1.5Hz bandwidth
Digital: > 350MHz

Modulation input signals

Analog: 0...4V -> 0...100% peak power
Digital: 0...1V / 50 Ohm with programmable trigger-level

Analog: 0...4V -> 0...100% peak power
Digital: 0...1V / 50 Ohm with programmable trigger-level

Rise- and falltime

< 1ns

< 1ns

Extinction ratio

> 250 : 1

> 250 : 1

Pulse shaping parameter

Programmable burst height 0...100% of peak power
Programmable burst length 5.5ns -500ns

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Programmable burst length 5.5ns -500ns

Supply voltage

85-245VAC, 50/60Hz

85-245VAC, 50/60Hz

Features

Safety-Interlock
RS-232 interface

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RS-232 interface

Options

LDM.COL - collimator objective
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Polarisation

> 100:1 vertical

> 100:1 vertical

Power stability

< 0.5% / h

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Noise 0Hz-100MHz

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Modulation speed

Analog: up to 350MHz @ -3dB
Digital: > 350MHz

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Digital: > 350MHz

Modulation input signals

Analog: 0...1V / 50 Ohm
Digital: 0...1V / 50 Ohm with programmable trigger-level
peak power control: 0...4V -> 0...100% with 1.5Hz bandwidth

Analog: 0...1V / 50 Ohm
Digital: 0...1V / 50 Ohm with programmable trigger-level
peak power control: 0...4V -> 0...100% with 1.5Hz bandwidth

Rise- and falltime

Analog: < 2ns
Digital: < 1ns

Analog: < 2ns
Digital: < 1ns

Extinction ratio

> 250 : 1

> 250 : 1

Supply voltage

85-245VAC, 50/60Hz

85-245VAC, 50/60Hz

Features

Safety-Interlock
RS-232 interface

Safety-Interlock
RS-232 interface

Options

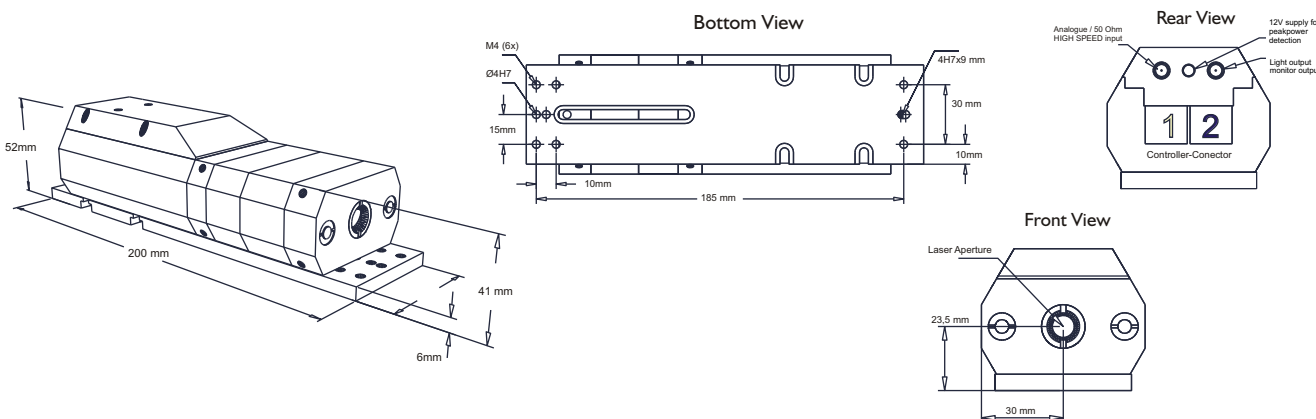
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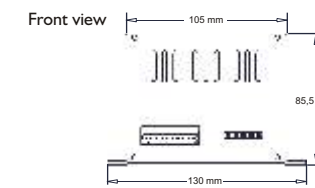
LDM□□□□.□□□.PS350.□
Wavelength in nm Power in mW M=Multi-Mode

LDM□□□□.□□□.A350.□
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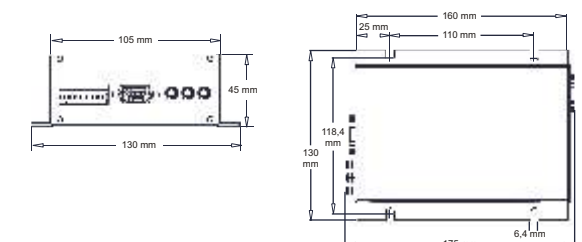
PS350 / A350 Laserhead



PS350 / A350 PSU



PS350 / A350 Controller



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