

Designation:	Specifications Pilot-lasermodule 670/850 nm PLM670 / PLM850
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	Dept.	Name	Signature	date:
Created:	Project manager	Rabsahl		
Approved:	Managing director Askion	Doms		

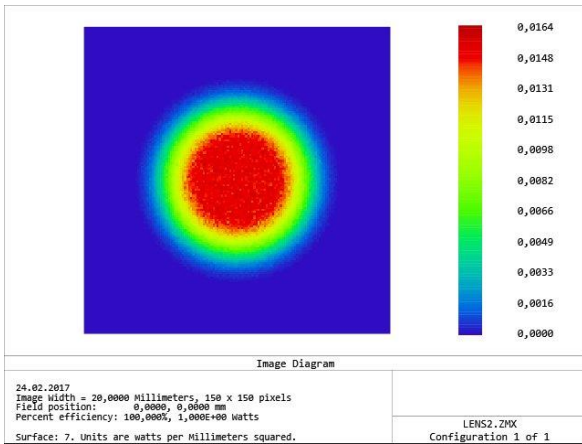
History of changes

Date	Version	Changed objects	Editor
09.05.2017	01	Initial version	M. Rabsahl

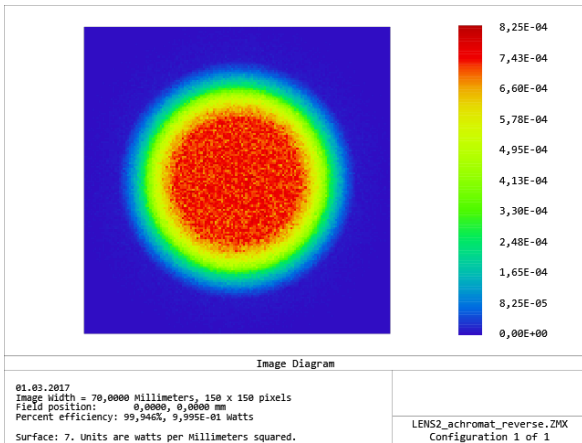
1. Optical	
1.1. Laser classification	850: Laser class 1 at continuous operation Laser class 3R short term 670: Laser class 2 at continuous operation
1.2. Optical power	850: $\leq 0,78$ mW for class 1 @ 20 °C $\leq 3,99$ mW for class 3R 670: $\leq 1,0$ mW for class 2 according DIN 60825-1:2015
1.3. Wavelength	850: ≈ 850 nm (infrared - invisible) 670: ≈ 670 nm (red - visible)
1.4. Divergence	$\geq 0,3$ mrad $\leq 0,5$ mrad
1.5. Spot size @ aperture	≤ 6 mm
1.6. Ellipticity	$> 0,75$
1.7. Pointing stability	< 50 μ rad/K
1.8. Pointing absolute	$\leq 0,3$ mrad
2. Electrical	
2.1. Supply voltage	3.3V – 5V
2.2. Power consumption during radiation	$< 0,1$ W
3. Interface	
3.1. Connector	Molex 504050-0491
3.2. Interface Type	<ul style="list-style-type: none"> • power supply and GND • pin to enable Laser (850: Class 1; 670: Class 2) • pin to increase power to Class 3R radiation (850 only)
4. Mechanical	
4.1. Dimensions (W x H x L)	Max. 12 mm diameter and 60 mm long
4.2. Weight	≤ 25 g without mount
4.3. Mounting	Mountable to DMM1025
5. Environmental	
5.1. Operating temperature	-20 ... +55 °C
5.2. Storage Temperature	-40 ... +70 °C

Laser Beam:

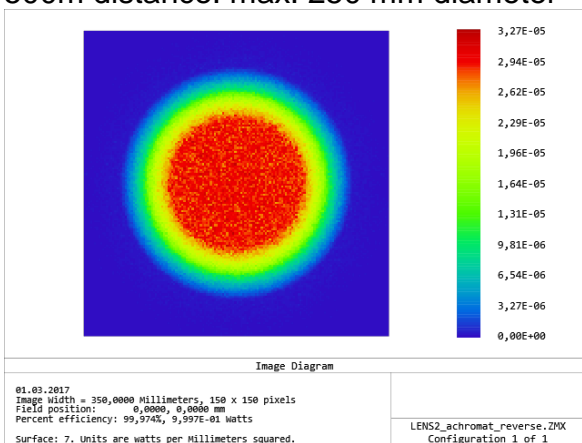
20m distance: max. 10 mm diameter



100m distance: max. 50 mm diameter

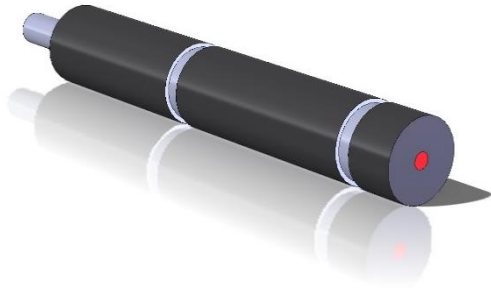


500m distance: max. 250 mm diameter



Similar beam profile over whole distance

First draft:



Two possible mounting options for DMM1025:

- Mounting under the DMM1025 with a 15 mm thick adapter
Mounting without changes to the DMM
Same mounting like without the pilot laser
- Mounting besides DMM
DMM has to be machined, new threads needed

