

DOT LASERS



Illustrative representation

These laser modules are available in both plastic and glass optics.
They are available in both CW mode and modulated.

DOT LASER RED

LASER DIODE MODULES WITH CIRCULAR BEAM

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1020-635-1-C	635	0.95	0.7	0.6	3 - 5.5	-10 - +45	10 x 20	
IMM1020-635-10-C	635	10	0.7	0.6	3 - 5.5	-10 - +45	10 x 20	
IMM1020-655-1-C	655	0.95	0.7	0.6	3 - 5.5	-10 - +65	10 x 20	
IMM1020-655-10-C	655	10	0.7	0.6	3 - 5.5	-10 - +45	10 x 20	

MODULATED

IMM1040-635-1-C-X-Y	635	0.95	1	0.4	4.5 - 5.5	-10 - +45	10 x 40	0 - 25 kHz
IMM1040-635-10-C-X-Y	635	10	1	0.4	4.5 - 5.5	-10 - +45	10 x 40	0 - 25 kHz
IMM1040-655-1-C-X-Y	655	0.95	1	0.4	4.5 - 5.5	-10 - +65	10 x 40	0 - 25 kHz
IMM1040-655-10-C-X-Y	655	10	1	0.4	4.5 - 5.5	-10 - +65	10 x 40	0 - 25 kHz

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LASER DIODE MODULES WITH ELLIPTICAL BEAM

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1020-635-1-E	635	0.95	0.7 x 2	0.6	3 - 5.5	-10 - +45	10 x 20	
IMM1020-635-10-E	635	10	0.7 x 2	0.6	3 - 5.5	-10 - +45	10 x 20	
IMM1020-655-1-E	655	0.95	0.7 x 2	0.6	3 - 5.5	-10 - +65	10 x 20	
IMM1020-655-10-E	655	10	0.7 x 2	0.6	3 - 5.5	-10 - +65	10 x 20	

MODULATED

IMM1040-635-1-E-X-Y	635	0.95	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0 - 25 kHz
IMM1040-635-5-E-X-Y	635	5	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0 - 25 kHz
IMM1040-635-20-E-X-Y	635	20	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0 - 25 kHz
IMM1040-655-1-E-X-Y	655	0.95	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0 - 25 kHz
IMM1040-655-5-E-X-Y	655	5	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0 - 25 kHz
IMM1040-655-50-E-X-Y	655	40	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0 - 25 kHz

APPLICATIONS

- Pointing
- Alignment lasers
- Laboratory instruments
- Measuring instruments
- Sensors

FEATURES

- High output power range
- Wide wavelength range
- Development and production in Germany
- Various sizes
- Customized solutions available

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DOT LASER RED

GENERAL	VALUE	NOTE
Wavelength	660 nm	
Output power (max.)	60 mW	
Power stability	< 6 % (typ.)	Evaluated for the Laser Line Collimator over a range of -10 °C to +80 °C
Line options	Collimated / Focused	On request
Laser safety class	1 - 3B	Depending on laser diode
Line length (1 m distance)	1.3 m	Others on request
Line width (collimated / focused @0.5 m, @1 m, @1.5 m)	2 mm / 0.45 mm, 0.75 mm, 1 mm	
System storage temperature range	- 20 °C to +70 °C	
ELECTRONICS	VALUE	NOTE
Supply voltage	9 V	
Operating current	240 mA max.	
Galvanically isolated		On request
Modulation	analog	
FIBER	VALUE	NOTE
Fiber connection	Permanently connected	
Fiber	SMF with OD = 3.4 mm stainless steel tubing	Others on request
Fiber length	> 1 m	Others on request
Fiber operating temperature range	-40 °C to +85 °C	Others on request

DOT LASER RED

SINGLEMODE PIGTAIL	VALUE	NOTE
Laser source operating temperature range	-10 °C to + 50 °C	
Housing dimensions	25.5 mm x 25,5 mm x 35 mm	
Distance mounting holes	12 mm	2 x M3 screw
Distance mounting threads	10 mm	2 x M2.5 thread

LASER LINE COLLIMATOR	VALUE	NOTE
Collimator length	31.5 mm	
Collimator diameter	16 mm	
Aperture angle	60 °	Others on request
Collimator operating temperature range	-10 °C to +80 °C	

APPLICATIONS

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FEATURES

- Fiber coupled homogeneous line laser
- High beam quality ex fiber (TEM00-Mode)
- Passive cooled, robust and compact single-mode Pigtail
- Compact design for integration in larger systems
- Flexible: Separation between laser source and optics
- Collimated / Focused
- Application: harsh environments, measurement systems
- Custom: wavelength, aperture angle, output power and modulation

Subject to technical modifications. As per October 2024.

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DOT LASER GREEN

LASER DIODE MODULES WITH CIRCULAR BEAM

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1040-520-1-C-X-Y	520	0.95	1	0.4	2.5 - 10	-10 - +60	10 x 40	0 - 200 kHz
IMM1040-520-10-C-X-Y	520	10	1	0.4	2.5 - 10	-10 - +60	10 x 40	0 - 200 kHz

LASER DIODE MODULES WITH ELLIPTICAL BEAM

DESCRIPTION	WAVE-LENGTH (nm)	OUTPUT POWER (mW)	BEAM DIAMETER (mm)	BEAM DIVERGENCE (mrad)	OPERATING VOLTAGE (V)	OPERATING TEMPERATURE (°C)	OUTLINE DIMENSIONS Ø x L (mm)	OPTIONAL MODULATION
IMM1040-520-1-E-X	520	0.95	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0 - 200 kHz
IMM1040-520-5-E-X	520	5	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0 - 200 kHz
IMM1040-520-50-E-X	520	50	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0 - 200 kHz

APPLICATIONS

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FEATURES

- High output power range
- Wide wavelength range
- Development and production in Germany
- Various sizes
- Customized solutions available
- Dot laser module with green light
- Low power consumption
- Optional: power setting via analog input

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DOT LASER GREEN

GENERAL	VALUE	NOTE
Wavelength	520 nm	
Output power (max.)	35 mW	
Power stability	< 6 % (typ.)	Evaluated for the Laser Line Collimator over a range of -10 °C to +80 °C
Line options	Collimated / Focused	On request
Laser safety class	1 - 3B	Depending on laser diode
Line length (1 m distance)	1.3 m	Others on request
Line width (collimated / focused @0.5 m, @1 m, @1.5 m)	2 mm / 0.45 mm, 0.75 mm, 1 mm	
System storage temperature range	- 20 °C to +70 °C	
ELECTRONICS	VALUE	NOTE
Supply voltage	5 V	
Operating current	240 mA max.	
Galvanically isolated		On request
Modulation	analog	
FIBER	VALUE	NOTE
Fiber connection	Permanently connected	
Fiber	SMF with OD = 3.4 mm stainless steel tubing	Others on request
Fiber length	> 1 m	Others on request
Fiber operating temperature range	-40 °C to +85 °C	Others on request

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Distance mounting holes	12 mm	2 x M3 screw
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**WE LOOK
FORWARD**
to solving your
challenge

