

IMM PHOTONICS – OPTOELECTRONIC COMPONENTS

engineered for your success

Laser Diode Modules



Laser Diode Collimators



OUR PRODUCT GROUPS



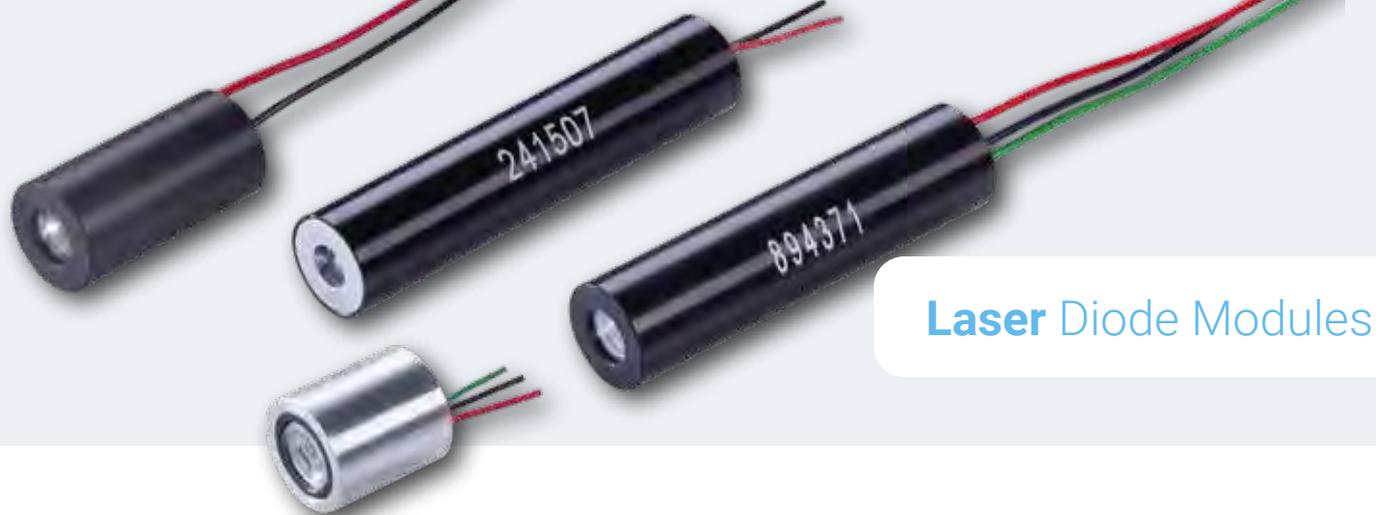
MAXIMUM PRECISION – FROM STANDARD TO INDIVIDUALLY DEVELOPED PRODUCTS

IMM Photonics produces innovative optical and optoelectronic components and modules for a diverse range of technological fields – from measuring technology and analytics, biophotonics and medical devices to optical data transfer and security engineering.

What makes our portfolio special: Our **standard products** in laser technology, fibre optics, UV & UVC and optics can be refined on request and tailored to the customer's specific needs. We also produce complete **individual solutions** to meet our customers' budgets and deadlines as well as the high quality standards they demand. Both types of product can be easily integrated into existing customer systems.

IMM PHOTONICS – EXPERTISE SINCE 1992

With our well established presence on the market, for more than 30 years we at IMM Photonics have provided trust-based and successful support to customers from a range of technological fields with the production of innovative components and modules. Our standard optical and optoelectronic products are produced in-house at our two German business locations and by selected partner manufacturers – for truly high-tech products made in Germany.



Laser Diode Modules

Our specialists for optics, electronics and mechanics in our development department have developed the laser diode collimators and modules in Germany. They are manufactured at our production site in Bavaria. State-of-the-art production facilities and measuring equipment ensure consistently high quality.

The selection of the components used ensures a long availability without changes.

In addition to the standard products, customized solutions beyond the collimators and modules are available.

Beyond the standard program, wavelengths from 375 to 2300 nm are available. The power range extends from a few mW to several 100 mW depending on the laser diodes used.

Depending on customer requirements and wavelengths, the collimators and modules are equipped with either polymer or glass optics.

Selected modules can also be equipped with a modulation input. The modulation frequency range is up to 200 kHz.

LASER DIODE MODULES WITH CIRCULAR BEAM

Description	Wavelength	Output power	Beam diameter	Beam divergence	Operating voltage	Operating temperature	Outline dimensions Ø x L	Optional modulation
Parameter	nm	mW	mm	mrad	V	°C	mm	
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	
IMM1040-520-1-C-X-Y	520	0.95	1	0.4	2.5 - 10	-10 - +60	10 x 40	0-200kHz
IMM1040-520-10-C-X-Y	520	10	1	0.4	2.5 - 10	-10 - +60	10 x 40	0-200kHz
IMM1040-635-1-C-X-Y	635	0.95	1	0.4	4.5 - 5.5	-10 - +45	10 x 40	0-25kHz
IMM1040-635-10-C-X-Y	635	10	1	0.4	4.5 - 5.5	-10 - +45	10 x 40	0-25kHz
IMM1040-655-1-C-X-Y	655	0.95	1	0.4	4.5 - 5.5	-10 - +65	10 x 40	0-25kHz
IMM1040-655-10-C-X-Y	655	10	1	0.4	4.5 - 5.5	-10 - +65	10 x 40	0-25kHz



Small size laser diode module

Outline Dimensions Ø x L: 10 x 20 mm



Standard size laser diode module

Outline Dimensions Ø x L: 10 x 40 mm



LASER DIODE MODULES WITH ELLIPTICAL BEAM

Description	Wavelength	Output power	Beam diameter	Beam divergence	Operating voltage	Operating temperature	Outline dimensions Ø x L	Optional modulation
Parameter	nm	mW	mm	mrad	V	°C	mm	
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	
IMM1040-520-1-E-X	520	0.95	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0-200kHz
IMM1040-520-5-E-X	520	5	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0-200kHz
IMM1040-520-50-E-X	520	50	1 x 3	0.4	2.5 - 10	-10 - +60	10 x 40	0-200kHz
IMM1040-635-1-E-X-Y	635	0.95	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0-25kHz
IMM1040-635-5-E-X-Y	635	5	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0-25kHz
IMM1040-635-20-E-X-Y	635	20	1 x 3	0.4	4.5 - 5.5	-10 - +45	10 x 40	0-25kHz
IMM1040-655-1-E-X-Y	655	0.95	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0-25kHz
IMM1040-655-5-E-X-Y	655	5	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0-25kHz
IMM1040-655-50-E-X-Y	655	40	1 x 3	0.4	4.5 - 5.5	-10 - +65	10 x 40	0-25kHz



Small size laser diode module

Outline Dimensions Ø x L: 10 x 20 mm



Standard size laser diode module

Outline Dimensions Ø x L: 10 x 40 mm

LASER DIODE MODULES WITH LINE GENERATOR

Description	Wavelength	Output power	Beam parameter	Operating voltage	Operating temperature	Outline dimensions Ø x L	Optional modulation
Parameter	nm	mW	mm x Deg	V	°C	mm	
IMM1255-520-1-L	520	0.95	0.7 x 100	2.5 - 10	-10 - +60	12 x 55	0-200kHz
IMM1255-520-50-L	520	50	0.7 x 100	2.5 - 10	-10 - +60	12 x 55	0-200kHz
IMM1255-635-1-L-Y	635	0.95	0.7 x 100	4.5 - 5.5	-10 - +45	12 x 55	0-25kHz
IMM1255-635-8-L-Y	635	8	0.7 x 100	4.5 - 5.5	-10 - +45	12 x 55	0-25kHz
IMM1255-655-1-L-Y	655	0.95	0.7 x 100	4.5 - 5.5	-10 - +65	12 x 55	0-25kHz
IMM1255-655-50-L-Y	655	50	0.7 x 100	4.5 - 5.5	-10 - +65	12 x 55	0-25kHz
IMM1618-635-1-L	635	0.95	0.7 x 80	4.5 - 5.5	-10 - +45	16 x 18	
IMM1618-635-8-L	635	8	0.7 x 80	4.5 - 5.5	-10 - +45	16 x 18	
IMM1618-655-1-L	655	0.95	0.7 x 80	4.5 - 5.5	-10 - +65	16 x 18	
IMM1618-655-50-L	655	50	0.7 x 80	4.5 - 5.5	-10 - +65	16 x 18	



Laser diode module with gaussian line

Outline Dimensions \varnothing x L: 12 x 55 mm



Laser diode module with gaussian line – short version

Outline Dimensions \varnothing x L: 16 x 18 mm

OPTIONS

X=0 Polymere optics

X=1 Glass optics

Y=0 no modulation

Y=1 Modulation as spezified

APPLICATIONS

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

FEATURES

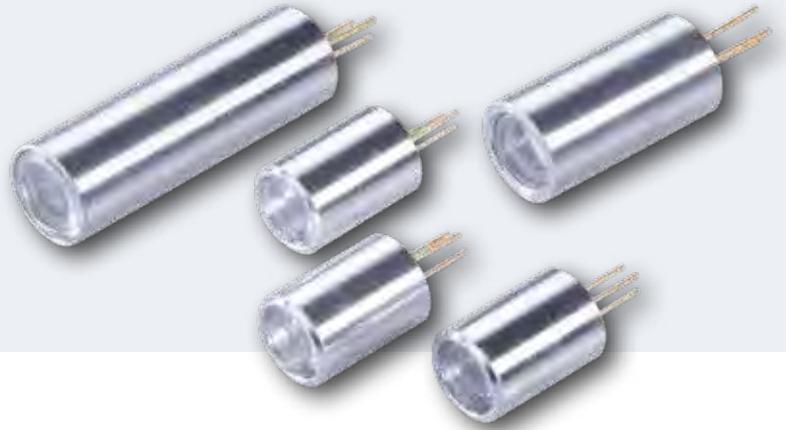
- High output power range
- Wide wavelength range
- Development and production in Germany
- Various sizes
- Customized solutions available

NOTES

The above product specifications are typical values and subject to change without notice.



Laser Diode Collimators



The laser diode collimators have been specially developed for OEM use and are supplied with polymer optics in various focal lengths.

Beyond the offered wavelengths, laser diode collimators from 375 to 2300 nm are offered on a customer-specific basis. Of course, collimators with glass optics and additional optical elements are also available.

For better cleaning, cover glasses can also be tightly bonded flush with the leading edge.

The press-fit process developed at IMM Photonics allows chip tolerances of the laser diodes to be compensated. Other materials such as nickel silver or brass are also available. The collimators made of aluminum can also be offered anodized.

LASER DIODE COLLIMATORS

Description	Wavelength	Output power	Beam shape	Beam divergence	Operating temperature	Outline dimensions Ø x L
Parameter	nm	mW	mm x mm	mrad	°C	mm x mm
IMK0408-520-7	520	7	0.7 x 2	0.6	-10 - +45	4.2 x 8
IMK0408-655-3	655	3.5	0.7 x 2	0.6	-10 - +45	4.2 x 8
IMK0710-520-7	520	7	0.7 x 2	0.6	-10 - +60	7 x 10
IMK0710-635-3	635	3.5	0.7 x 2	0.6	-10 - +65	7 x 10
IMK0710-655-3	655	3.5	0.7 x 2	0.6	-10 - +65	7 x 10
IMK0714-520-6	520	6	1 x 3	0.4	-10 - +60	7 x 14
IMK0714-635-3	635	3	1 x 3	0.4	-10 - +60	7 x 14
IMK0714-655-3	655	3	1 x 3	0.4	-10 - +45	7 x 14
IMK0722-520-3	520	3	2 x 3.5	0.2	-10 - +60	7 x 22
IMK0722-635-2	635	2	2 x 3.5	0.2	-10 - +65	7 x 22
IMK0722-655-2	655	2	2 x 3.5	0.2	-10 - +65	7 x 22

APPLICATIONS

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

FEATURES

- High output power range
- Wide wavelength range
- Development and production in Germany
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EXPERIENCE MEETS EXPERTISE IN INNOVATION

We have been developing, manufacturing and distributing optical and optoelectronic standard products and individual solutions for more than 30 years, working as a reliable and capable partner with customers from many industrial sectors. Need someone you can trust with a complex task? The full extent of our experience and expertise in innovation is at your disposal. We look forward to developing prototypes and batch products for you at our two production sites in Germany – in keeping with the highest technical standards and with outstanding support from our large network of partners.

You get the **benefit** of advice, development and manufacturing all from a single source, designed and made in Germany.



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