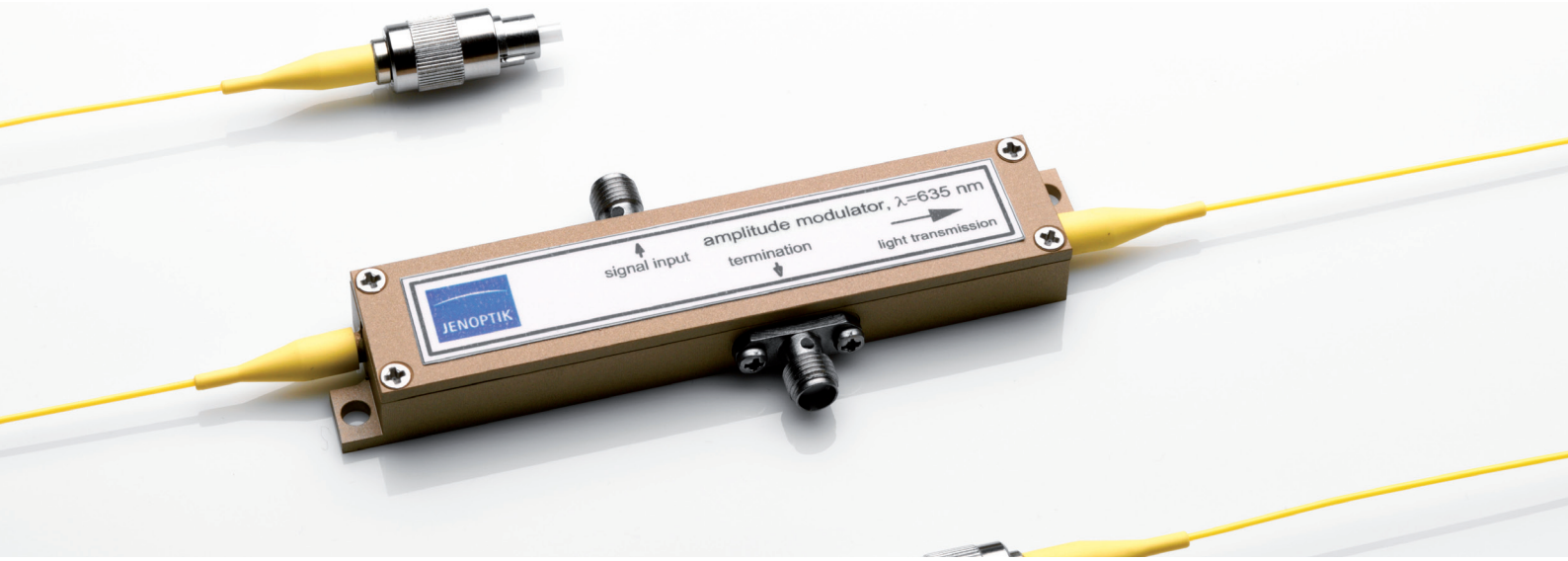
JENOPTIK

Integrated Optical Amplitude Modulator

Waveguide-based electro-optical light modulator



The Integrated Optical Amplitude Modulator is a compact fiber-coupled electro-optical modulator that works based on MgO:$LiNbO_3$ and $LiNbO_3$ crystals. Providing fast electro-optical response, it allows amplitude modulation with frequencies as high as the Gigahertz range.
Available modulators can handle wavelengths in the visible and the infrared spectral range. Standard-designed modulators use polarization maintaining single mode fibers to couple the light in and out. They may also be configured with fiber systems or connectors of different types. Each modulator may be fitted with a control & driver unit on special request.

Benefits

- Application in the VIS or IR spectrum
- High modulation frequencies
- Single mode fiber-coupling

Applications

- Analog and digital modulation
- Short laser pulse generation
- Pulse generation in oscillator amplifier systems
- Pulse picking
- Laser Scanning Microscopy
- Metrology

Optoelectronic Systems

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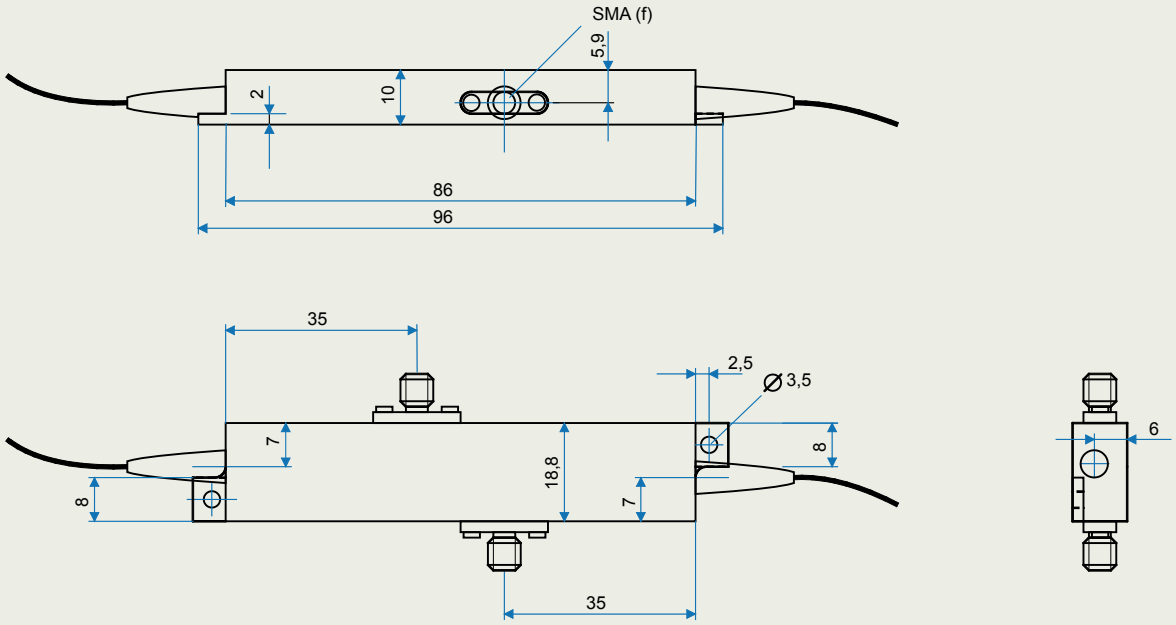
Specifications

Type	AM 532	AM 635	AM 830	AM 1064	AM 1550
Wavelength [nm] Other wavelengths on request	532	635	830	1064	1550
Spectral bandwidth [nm]	± 10	± 20	± 40	± 60	± 100
Insertion Loss, typical [dB]	7	7	6	5	5
Extinction, typical	200 : 1	500 : 1	800 : 1	1000 : 1	1000 : 1
Minimum optical rise time 10/90, typical	1 ns	200 ps	200 ps	200 ps	200 ps
Optical connection, input Standard Fiber connector	Polarisation maintaining single mode fiber Bare fiber, FC/PC connector or FC/APC connector				
Optical connection, output Standard Optional Fiber connector	Polarisation maintaining single mode fiber Single mode or multi mode fiber Bare fiber, FC/PC or FC/APC connector				
Half wave voltage, typical	2 V	3 V	3 V	3 V	5 V
Maximum optical input power (cw)	10 mW	30 mW	50 mW	300 mW	300 mW
Dimensions L x W x H (housing, without fiber feed-through)	96 mm x 19 mm x 10 mm				

Dimensions Amplitude Modulator



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.

JENOPTIK I Healthcare & Industry
Healthcare Business Unit
JENOPTIK Optical Systems GmbH
Goeschwitzer Strasse 25 I 07745 Jena I Germany
Phone +49 3641 65-4530 I Fax -3807
lightmodulators@jenoptik.com I www.jenoptik.com/light-modulators

60054333-004-99-14-1215-en