AOM

Fiber-coupled Acousto-Optic Modulator

AeroDIODE

www.aerodiode.com

AOM

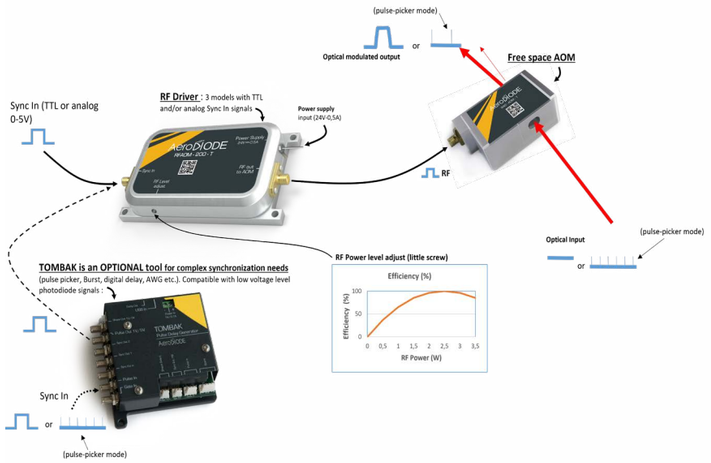
Precision free space Acousto-Optic Modulator

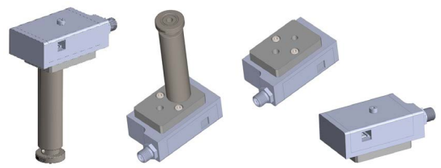
with RF-drivers and optional synchronization tools.

Designed to offer an optimized solution for amplitude modulation of laser light between 380 nm and 1700 nm. It is an easy-to-implement solution allowing direct control of the timing, intensity, and temporal shape of laser light in free space. This light modulation solution requires an RF driver which is offered in either digital Input (TTL) or analog-input configuration.

Key features:

- These devices are ideal tools for modulating the intensity of laser light down to the nanosecond timing range
- It is compatible with most of Q-switching or Pulse-picking applications needs.
- Down to 5 ns rise/fall time
- high diffraction efficiency up to 90%
- 17 AOM versions over 6 wavelengths ranges : 380-600 nm, 550-680 nm, 600-900 nm, 940-1100 nm, 1200-1430 nm, 1400-1700 nm.
- 3 RF driver versions with digital and/or analog inputs
- These products can also be used as a fixed frequency shifter. It slightly shifts the central optical wavelength by a fixed value equal to the RF frequency (80, 100 or 200 MHz) in both positive and negative value.

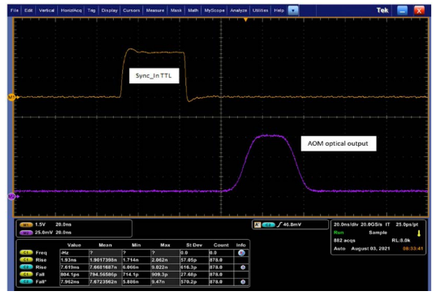




- All free space AOMs are supplied with a 5mm thick adapter plate compatible with standard pedestal bases with either 8/32 or M4 setscrews.

Technical Specifications

RF Driver - std version (TTL or analog).



20 ns output optical pulse shape (high speed AOM version).

RF driver : Special version able to combine digital (TTL) and analog inputs.

AOM Modules performances:

Nominal Wavelength	400 nm		532 nm		635 nm		780 nm			1064 nm		1310 nm		1550 nm		1650 nm	
RF Frequency	100 MHz	200 MHz	80 MHz	200 MHz	80 MHz	200 MHz	100 MHz	200 MHz	200 MHz	100 MHz	200 MHz	80 MHz	200 MHz	80 MHz	200 MHz	80 MHz	200 MHz
Active Aperture	2.0 mm	0.5 mm	2.0 mm	1.0 mm	1.0 mm	0.3 mm	1.0 mm	0.3 mm	1.0 mm	0.7 mm	0.3 mm	0.7 mm	0.3 mm	0.7 mm	0.3 mm	0.7 mm	0.3 mm
Wavelength range	380-600 nm		380-600 nm		550-680 nm		600-900 nm			940-1100 nm		1200-1430 nm		1400 - 1700 nm		1400-1700 nm	
Typical Rise/Fall time @ 20% of aperture diameter	65 ns	16 ns	65 ns	35 ns	35 ns	10 ns	35 ns	10 ns	35 ns	23 ns	10 ns	23 ns	10 ns	23 ns	10 ns	23 ns	10 ns
RF Power	0.3 W	0.5 W	1.5 W	1.0 W	0.8 W	1.0 W	1.5 W	2.5 W	2 W	1.8 W	2.5 W	2.5 W	2.5 W	2.5 W	2.5 W	2.5 W	2.5 W
Efficiency (optimized beam conditions) Min/Typical	80% /85%	80% /85%	85% /88%	80% /85%	85% /88%	85% /88%	85% /88%	80% /85%	70% /80%	85% /88%	70% /80%	75% /80%	55% /65%	75% /80%	55% /60%	75% /80%	50% /55%

Classification:

Name	1064FSAOM- or RFAOM-
AOM version :	RF Frequency : 80, 100, 200 Aperture diameter : 0.1, 0.3, 1, 2
RF Driver Version :	T : Standard digital (TTL input) A : Standard analog (0-5V analog input) AT : High-end model (Analog and TTL inputs)
TOMBAK (option)	Tombak (unique model)

TOMBAK is an optional pulse delay generator (with a photodiode adjustable threshold compatible input). It is ideal for complex synchronization needs like pulse-picking a mode-locked laser.

Ordering information:

AOM: 1064FSAOM - [_] - [_]

- Nominal Wavelength : 400 ; 532 ; 632 ; 780 ; 1064 ; 1310 ; 1550 ; 1650
- RF Frequency : 80 : 80 MHz ; 100 : 100 MHz ; 200 : 200 MHz
- Aperture diameter : 0.3 : 0.3 mm ; 0.5 : 0.5 mm ; 0.7 : 0.7 mm ; 1 : 1 mm ; 2 : 2 mm

RF Driver : RFAOM - [_] - [_]

- Version : T ; A ; AT
- RF Frequency (MHz) : 80, 100, 200 (refer to RF frequency of the AOM see the table above)

Optional TOMBAK pulse delay generator synchronization tool :

TOMBAK (unique model version)

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