

Fiber-Coupled Acousto-Optic Modulators

High-performance, compact, fiber-coupled acousto-optic modulators

The **Fiber-coupled acousto-optic modulators(FAOM)** are based on the principle of bulk wave acousto-optic interaction, and have the ability to modulate both the amplitude of optical pulses and the frequency shift of light. The speed of FAOM is reflected by the rise time of the output optical pulses, and the modulation speed determines the response speed and available bandwidth of the system. FAOM adopts fiber coupling, which has the advantages of convenient operation, easy integration, and high reliability compared to free-space acousto-optic devices. It is widely used in fiber sensing systems, fiber laser sand other fields.

We have designed and developed a series of fiber-coupled(polarization-maintaining and non-polarization-maintaining) AOMs, with a maximum frequency of 300MHz and a rise time as low as 6 ns. CASTECH can customize FAOMs with corresponding parameter indicators according to customer requirements, and the fiber end can also be equipped with FCAPC and other connectors as needed.

CASTECH's fiber-coupled AOMs are fully in-house manufactured and customizable to meet specific needs. Explore our standard product range below.



Applications

- Industrial laser
- Sensor communication
- Scientific research
- Quantum technology

Model Number: CAFA-f-p-mxb-w-c-h

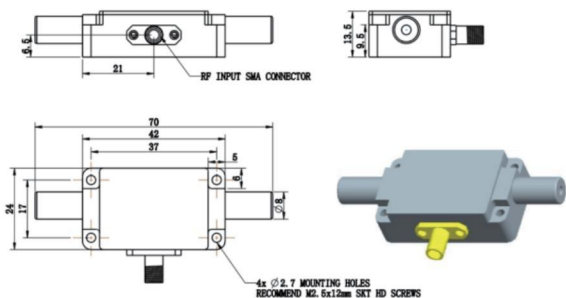
Center Frequency (f)	RF power (p)	Material (m)	Fiber Type (x)	Fiber Termina (b)	Wavelength (w)	RF Connector (c)	Housing (h)
080 (80 MHz) ...	020 (2 W)	CQ TE	1 (HI 1060) ...	B (Bare Fiber) F (FC/APC)	633 (633 nm) ...	AF (SMA-F) ...	A88 ...

Typical Specifications

Wavelength	Operation Frequency	Insertion Loss	Extinction Ratio	Rise/Fall Time	Fiber Type
1064 nm	100, 120 MHz	≤1.2 dB	>45 dB	≤45 ns	10/125
1064 nm	200 MHz	≤2 dB	>45 dB	<10 ns	PM980-XP
1064 nm	200 MHz	≤2 dB	>45 dB	≤10 ns	PM10/125
1064 nm	250 MHz	≤2.5 dB	>45 dB	≤8 ns	PM980-XP
1064 nm	300 MHz	≤3 dB	>45 dB	≤6 ns	PM980-XP
1550 nm	80 MHz	≤3 dB	>55 dB	≤40 ns	PM1550-XP
1550 nm	200 MHz	≤3 dB	>55 dB	<10 ns	PM1550-XP

Housing dimensions(mm):

A88



B55

