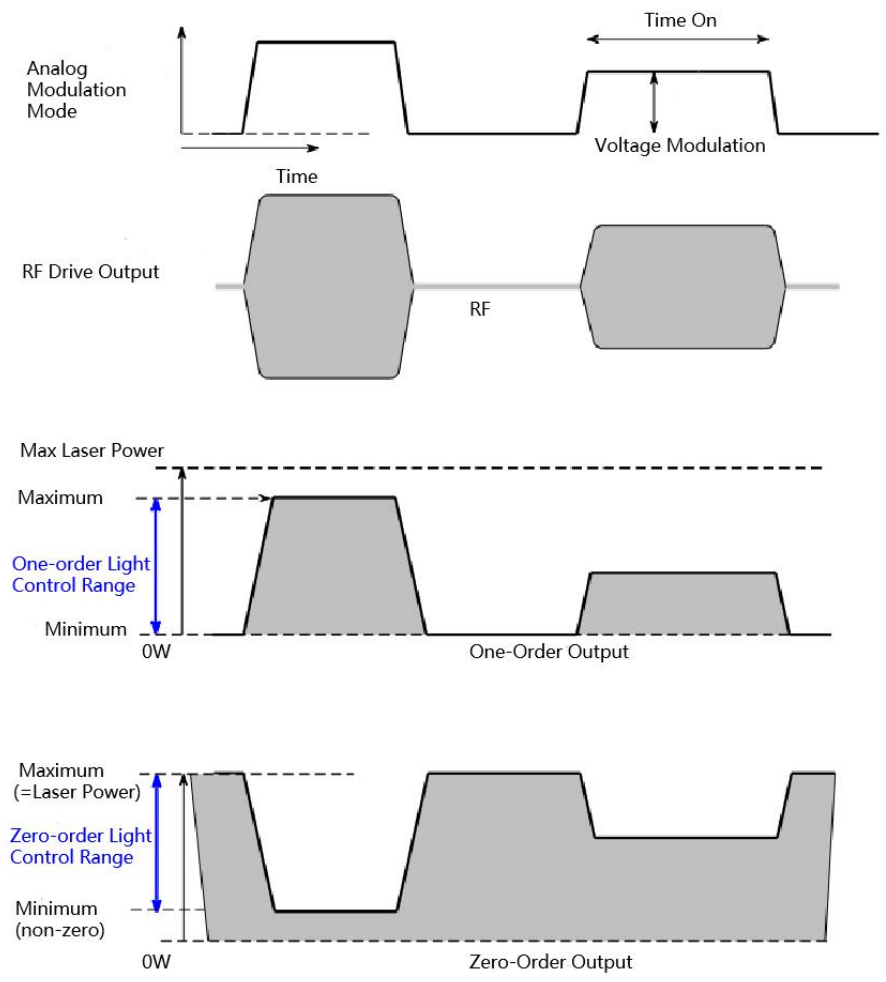
Fiber-coupled acousto-optic modulator (FCAOM) is based on the principle of body wave acousto-optic interaction and has the ability of optical pulse amplitude modulation and optical frequency shift. The rise time of the optical pulse output of the modulator represents the modulation speed which determines the response speed and available bandwidth of the system. Compared with free-space acousto-optic devices, FCAOM has the advantages of convenient to use, easy integration and high reliability with optical fiber coupling. It is widely used in fiber sensing system, fiber laser and other fields.

CASTECH can customize FCAOM with corresponding parameter according to customer requirements. The optical fiber terminal of FCAOM could be configured with FC / APC or other connectors as required.

Applications

●Laser marking ●Lithography ●Material processing ●Medical surgery ●Micromachining



Schematic diagram of acousto-optic modulation

Fiber-Coupled AOM Model Number：CAFA-f-r-p-mat-w-c-h

RF Frequency (f)	RF Range (r)	RF Power (p)	Material (m)	Fiber Type (a)	Fiber Termina l(t)	Wavelength (w)	RF Connector (c)	Housing (h)
80 MHz 100 MHz 120 MHz 200 MHz 250 MHz ...	0 (0 MHz） 1 (±1 MHz) 15 (±15 MHz) 50 (±50 MHz) ...	020 (≤2 W) 025 (≤2.5 W) 030 (≤3 W) ...	CQ (Crystalline Quartz) TE (TeO_2)	1 (HI1060) 2 (PM980) 3 (PM 10/125) 4 (10/125) 5 (20/125) 6 (10/125GDF) 7 (PM1550XP) 8 (PM1060L) 9 (SM28e) 10 (PMS350) 11 (PM1950) ...	B (Bare Fiber) F (FC/APC)	1030 nm 1064 nm 1550 nm ...	AF (SMA-F) AM (SMA-M) …	A50 A87 A88 B03 ...

Typical Specifications

Frequency	Wavelength	Insertion Loss	Extinction Ratio	Rise/Fall Time	Polarization Extinction Ratio*
120 MHz	1064 nm	≤ 1.2 dB	≥ 45 dB	≤ 40 ns	≥ 18 dB
200/250 MHz	1064/1030 nm	≤ 2.5 dB	≥ 50 dB	＜ 10 ns	≥ 18 dB
200 MHz	1550 nm	≤ 4.0 dB	≥ 50 dB	＜ 10 ns	≥ 18 dB

***Only applicable to polarization maintaining devices (Polarization extinction ratio refers to the proportional relationship between two orthogonal polarization components decomposed along the main polarization state direction)**

Housing dimensions(mm):

B03