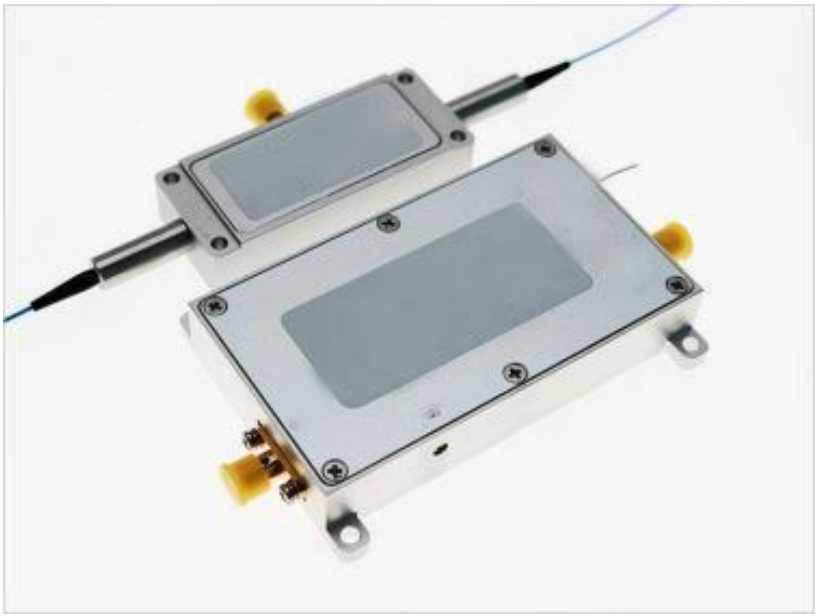
1064nm polarization-maintaining acousto-optic modulator



Product Description

Idealphotonics' acousto-optic modulators are widely used in the field of fiber optic sensing due to their high modulation extinction ratio and high power tolerance. This product is specially developed for the application needs of fiber optic sensing. It has the advantages of small size, low power consumption (<1W), fast rise time (12ns), good modulation pulse shape (small overshoot), good pulse repeatability (small repetition period jitter), etc., and the modulator and driver can be packaged in an integrated manner, which is convenient for system integration. It can be widely used in various

fiber optic sensing systems that require pulse modulation, such as ϕ-OTDR, BOTDR, and OFDR.

Product features

Small size、 Low power consumption (<500mW)、 Fast rise time (12ns)、 Good modulated pulse shape (small overshoot)、 Good pulse repeatability (small repetition period jitter)

Part Number

MP-AOM100-1064-1(X)

Application area

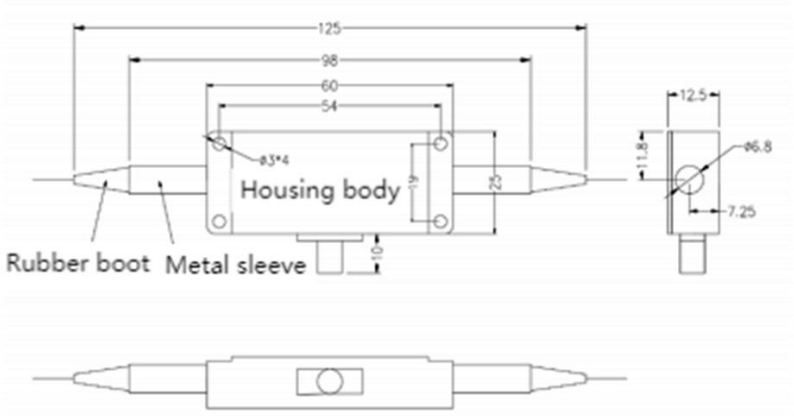
Fiber optic sensing、 LiDAR、 BOTDA

Core parameters

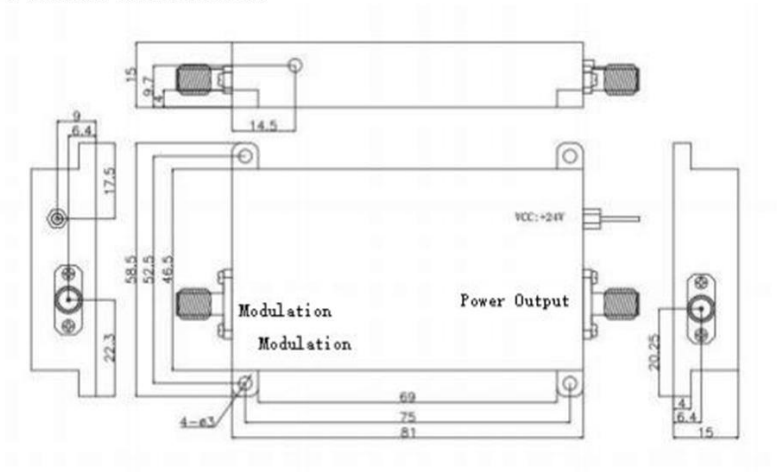
Wavelength	Operating Frequency	Connector
1064nm	100MHz	FC/APC

Dimension Drawing

A: dimension of AOM



B: driver dimension



General Parameters

Parameter

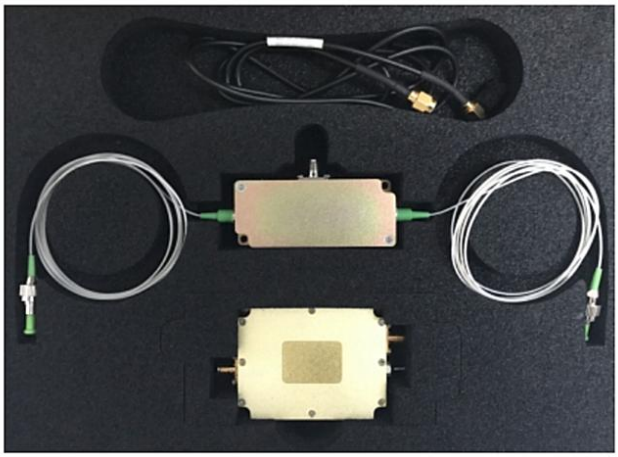
Parameter	Unit	PN#		
		MP-AOM100-1064-1(X)	MP-AOM150-1064-1(X)	MP-AOM200-1064-1(X)
Material	-	Tellurium oxide		

Wavelength	nm	1064		
Laser power	W	⩽0.5		
Pulse laser peak power	kW	⩽1（5W customized）		
Insertion loss	dB	⩽3	⩽4	⩽5
Extinction ratio	dB	⩾50		
Polarization extinction ratio (applicable to polarization-maintaining devices)	dB	⩾20		
Voltage standing wave ratio	1	⩽1.2:1		
Light pulse rise time	ns	40	20	12
Operating frequency	MHz	100	150	200
Fiber type	-	SM or PM		
Fiber connector	-	FC/APC		
Appearance structure	-	Figure A		
Driver		MP-D100-02-M-1D	MP-D150-02-M-1D	MP-D200-02-M-1D

Drive parameter

Parameter	Unit	PN#		
		MP-D100-02-M-1D	MP-D150-02-M-1D	MP-D200-02-M-1D
Operating frequency	MHz	100	150	200
Drive power	W	⩽2.5	⩽3	⩽3
Electric pulse rise time	ns	⩽20	⩽15	⩽7.5
Power switching ratio	dB	⩾55		
Power supply voltage (DC)	V	24		
Harmonic suppression	dBc	⩾25		
Modulation mode	-	TTL		
Output impedance	Ω	50		
Appearance structure	-	Figure B		

Modulation Curve



Rising edge test