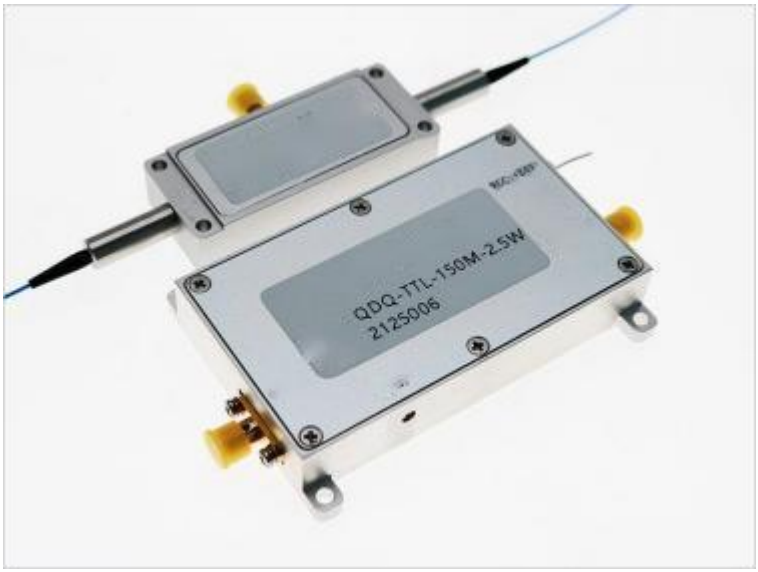
1550nm Single-Mode Acousto-Optic Modulator



Product Description

Idealphotonics' acousto-optic modulators are widely used in the field of fiber optic sensing due to their high modulation extinction ratio, high power handling capacity, and other advantages. This product is specifically designed for the application needs of fiber optic sensing, offering benefits such as compact size, low power consumption (<1W), fast rise time (12ns), good modulation pulse shape (small overshoot), and excellent pulse repetition stability (minimal jitter in repetition period). Moreover, the modulator and driver can be integrated into a single package for easier system integration, making it ideal for use in various fiber optic sensing systems that require pulse modulation, such as φ-OTDR, BOTDR, OFDR, and others.

Part Number

AOM200-1550-1-SA

Product features

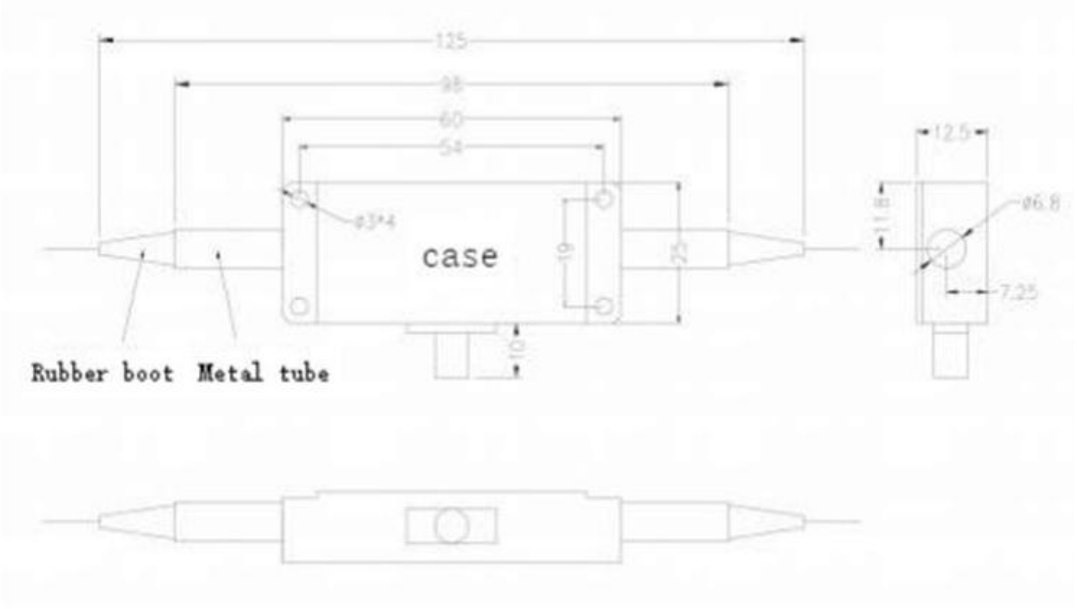
Compact size、 Low power consumption（＜500mW）、 Fast rise time（12ns）、 Good modulation pulse shape (small overshoot)

Application area

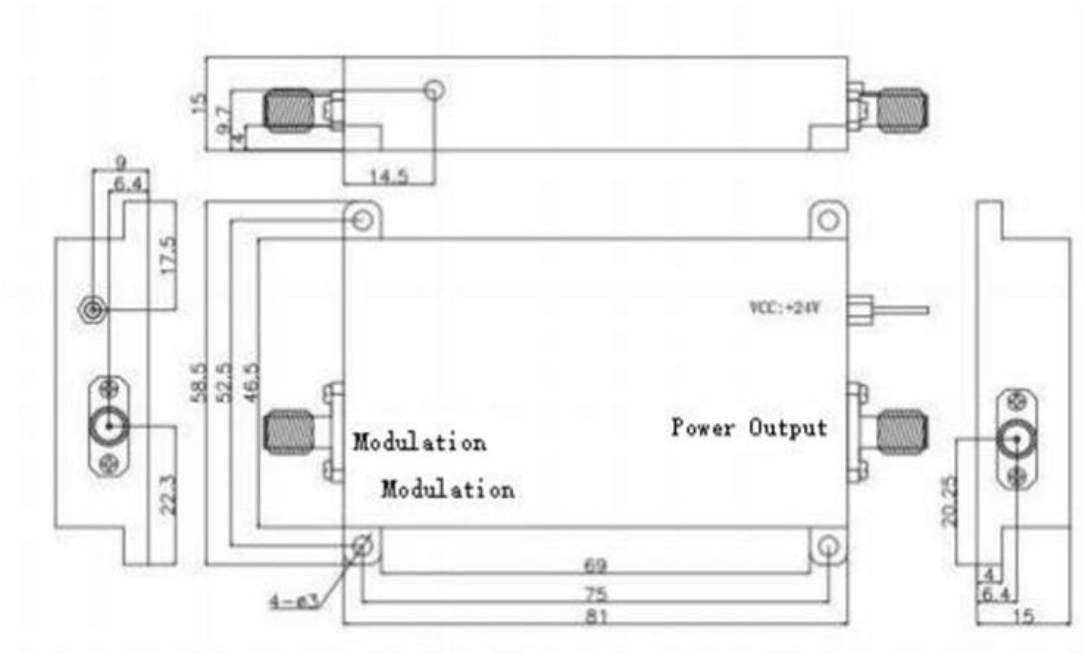
Fiber optic sensing、 LiDAR、 BOTDA

Dimensional Drawing

A:AOM Dimensions



B: Driver Dimensions



Parameters

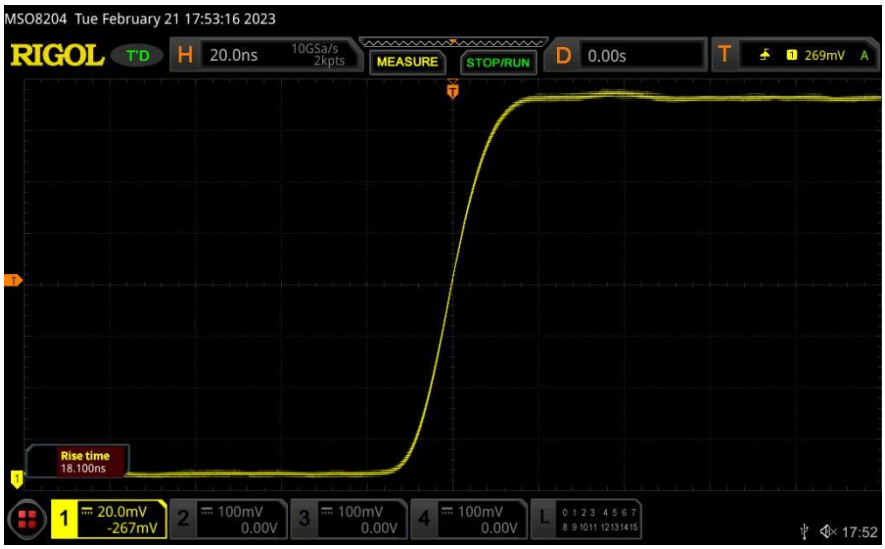
Parameter	Unit	PN#		
		AOM100-1550-1(X)	AOM150-1550-1(X)	AOM200-1550-1(X)
Material	-	TeO2		
Wavelength	nm	1550		
Maximum Laser Power	W	≤0.5		
Maximum Pulse Laser Peak Power	KW	≤1 (5KW Custom)		
Insertion Loss	dB	≤3	≤4	≤5
Extinction Ratio	dB	≥50		
Polarization Extinction Ratio (for polarization-maintaining devices)	dB	≥20		
Voltage Standing Wave Ratio	1	≤1.2:1		

Optical Pulse Rise Time	ns	40	20	12
Operating Frequency	MHz	100	150	200
Fiber Type	-	SM or PM		
Fiber Connector	-	FC/APC		
Structure	-	Figure A		
Driver		D100-02-M-1D	D150-02-M-1D	D200-02-M-1D

Driver

Parameter	Unit	PN#		
		D100-02-M-1D	D150-02-M-1D	D200-02-M-1D
Operating Frequency	MHz	100	150	200
Drive Power	W	≤2.5	≤3	≤3
Electrical Pulse Rise Time	ns	≤20	≤15	≤7.5
Power Switching Ratio	dB	≥55		
Power Supply Voltage (DC)	V	24		
Harmonic Suppression	dBc	≥25		
Modulation Method	-	TTL		
Output Impedance	Ω	50		
Shape Structure	-	Figure B		

Optical pulse rise time test



General parameters

Modulation curve