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Product Description

IDEAL The Power of Light PHOTONICS

Idealphotonics' acousto-optic modulators are widely used in the field of fiber optic sensing due to their high modulation extinction ratio and high power handling. 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 modulated pulse shape (small overshoot), good pulse repeatability (small repetition period jitter), etc. In addition, 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, OFDR, etc.

Part Number

AOM80-1550-1-SA

Product features

Small size Low power consumption (<500mW) Fast rise time (12ns),

Good modulation pulse shape (small overshoot), Good pulse repeatability (small repetition period jitter)







Fiber Optic Sensing、 LiDAR、 BOTDA

Parameters

Dimensional Drawing

A:AOM Size



B, Driver Dimensions:



Specification

General performance parameters

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Parameters	Unit	Min.	Max.	convention	Note
Material				TeO2	
Wavelength	nm	1520	1580	1550	
Average optical power (CW)	W		0.5		
Ultrasonic sound velocity	m/s			4200	
Insertion loss	dB		2.5		
Polarization extinction ratio-	dB	18			
Extinction ratio	dB	50			
Return loss	dB	40			
Rise time	ns		45		

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Frequency	MHz		80	
Frequency shift	MHz		+80	
Frequency stability			0.1%	
RF power	W		2.5	
VSWR			1.2:1	
Input impedance	Ω		50	
Device interface			SMA	
Fiber type		SM or PM		
Fiber length	m		1	
Fiber interface			FC/APC	
Operating	°C		20. 60	
temperature	C		-20~00	
Storage	്		-30~70	
temperature	C		-30-70	

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			
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 method	-	TTL					
Output impedance	Ω	50					
Appearance structure	-	Figure B					

General parameters

Modulation curve





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