

MT110-BxxA1.5-xx-Hk

Product Overview

This modulator has been specially designed for an operation with Ti:Sa laser in the range of 690-1064 nm/680-1300nm. In combination with the AA MPDS driver, it offers a constant diffraction efficiency and output angle for the whole wavelength range with no Bragg Angle adjustment.

Common application can be Stimulated Emission Depletion (STED) microscopy, multiphoton imaging system and many others.

FEATURES

- Broad wavelength range: 690-1064 nm/680-1300 nm
- Constant output diffracted angle
- Constant diffraction efficiency



SPECIFICATIONS (T=25°C)

PARAMETER	RATING	UNIT
Material-Acoustic mode-Velocity	TeO2-L - 4200	m/s
Input / Output Polarization	Linear Vertical	
Active Aperture	1.5 x 2 mm ²	
Rise/fall time (T _r)	160 ns/mm	
Min Rise/fall time	128	
Static Extinction Ratio	>33	dB
Max Optical power density	10	W/mm²
RF power	<2.2	W
Input impedance	50 50	
V.S.W.R.	< 1.2:1	
Connector	SMA female	
Size	60.1 x 28.7 x 26.5 m	
Weight	Nom 100 g	
Packaging	IN PRO 046	
Temperature stabilization	Passive top heatsink	
Operating Temperature (non condensing)	+10 to +40 °C	
Storage Temperature (non condensing)	-40 to +65 °C	
RoHS Compliance	Yes	

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AO MODULATOR/SHIFTER FOR TI:SA LASERS

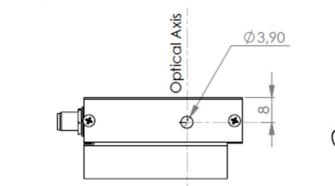
MT110-BxxA1.5-xx-Hk

Versions

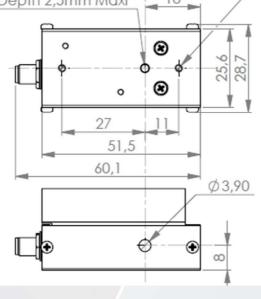
	MT110-B50A1.5-IR-Hk	MT110-B69A1.5-680.1300-Hk
Wavelength	690-1064 nm	680-1300nm
Carrier Frequency/Frequency shift(MHz)	+/- (85 to 135)	+/-(75.5 to 144.5)
Diffraction efficiency (%)	>80, nom 85	>75, nom 80
Transmission (%)	>95	>80 @685 nm
		>95@1064 nm
		>95@1300 nm
Maximum RF power (W)	2.2	2.5

$$T_r = 0.66\frac{\phi}{V} * F_{-3dB} = \frac{0.48}{T_r} * \Delta\theta = \frac{\lambda F}{V} * \frac{P_1}{P_2} = \frac{\lambda_1}{\lambda_2}$$

OUTLINE DRAWING IN PRO 046, mm

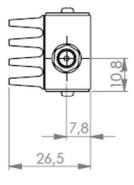


Bragg Angle Adjust Ø2,5 +0,01 Depth 2,5mm Maxi



SMA Connector

2 Threaded Holes M2,50 Depth 2,5mm Maxi



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