

MT110-A1-VIS-M014

Product Overview

These free space modulators operate at 110MHz, covering the wavelength range 450-700 nm. The intended application can be amplitude modulation as well as frequency shifting. Its compact housing is a good feature as regards to integration in laser systems.

FEATURES

- Fast rise time/Access time.
- Compact housing.
- Linear polarization.
- High diffraction efficiency.



SPECIFICATIONS (T=25°C)

PARAMETER	RATING	UNIT
Material-Acoustic mode-Velocity	TeO ₂ -L - 4200	m/s
Wavelength range	450-700	nm
Carrier Frequency / Frequency shift	+/-110	MHz
Transmission	≥95, nom 98	%
Input / Output Polarization	Linear Vertical	
Rise/fall time (T _r)	160	ns/mm
Min Rise/Fall time	48	ns
Static Extinction Ratio	>33	dB
Diffraction efficiency*	>85	%
Optical power density	5	W/mm ²
Input impedance	50	Ω
V.S.W.R.	< 1.2:1	
RF Power	< 1	W
RF Connector	SMA male plug	
RF cable length	< 30	cm
Size	35 x 22.8 x 20.9	mm ³
Weight	Nom 50	g
Packaging	IN PRO 157	
Operating Temperature (non condensing)	+10 to +40	°C
Storage Temperature (non condensing)	-20 to +50	°C
RoHS Compliance	Yes	

*Diffraction efficiency is beam diameter and wavelength dependant.

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

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OUTLINE DRAWING, mm

