

MTS110-A3-VIS

PRODUCT OVERVIEW

Based on TeO₂, these modulators/shifters use the slow shear mode interaction and hence one can benefit from its large active aperture, large separation angle, high diffraction efficiency as well as the low RF power consumption. Common applications include bio-photonics, interferometry and many others

FEATURES

- Large Active aperture & separation angle
- Linear polarization
- High diffraction efficiency.
- Low RF power consumption.



SPECIFICATIONS (T=25°C)

PARAMETER	RATING	UNIT
Material-Acoustic mode-Velocity	TeO ₂ [S] – 650	m/s
Optical Wavelength range (AR coated) (λ)	458-670	nm
Carrier Frequency / Frequency shift(F)	+/-110	MHz
Transmission	≥95, nom 98	%
Input / Output Polarization	Linear /Polarisation flip ≈90°	
Active Aperture	3 x 3	mm ²
Rise/fall time (T _r)	1	μs/mm
Separation Angle (O-1) (Δθ)	>77	mrd
Static Extinction Ratio	>33	dB
*Diffraction Efficiency (η)	>85, nom 90	%
Max optical power density	1 @ 488 nm 5 @ 633 nm	W/mm ²
Input impedance	50	Ω
V.S.W.R.	< 1.2:1	
RF Power (P)	<1	W
Connector	SMA female	
Size	50.9 x 22.4 x 17.3	mm ³
Weight	Nom 50	g
Packaging	IN PRO 050	
Operating Temperature (non condensing)	+10 to +40	°C
Storage Temperature (non condensing)	-40 to +65	°C
RoHS Compliance	Yes	

*Diffraction efficiency is beam diameter and wavelength dependent

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

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OUTLINE DRAWING, mm

