

DTSXY-xx-Fi-PM

Product Overview

This high-resolution deflector is equipped with an input polarization maintaining fiber in order to have a plug and play deflector (PnP AOD): no Bragg angle adjustment, no beam alignment. They operate with TeO₂ shear mode and hence offer a large scan angle as well as high resolution. Associated to the appropriate RF driver, such AOD provides high precision and accuracy which is required for most applications such as optical tweezers, biomedical diagnostics and many others. They are available with both 1-axis and 2-axis configurations.

FEATURES

- Low RF power
- Input fiber pigtailed
- High diffraction efficiency
- High resolution
- Multi tone operation.



SPECIFICATIONS (T=25°C)

PARAMETER	DTSXY-Gx1-Fi-PM1-J1-A @532nm	DTSXY-NIRx1-Fi-PM5-J1-A @850nm
Material-Acoustic mode-Velocity	TeO ₂ [S] – 650 m/s typ	TeO ₂ [S] – 650 m/s typ
Wavelength	532 nm	850 nm
Input / Output Polarization	Linear (aligned on fiber slow axis) /orthogonal to baseplate	Linear (aligned on fiber slow axis) /orthogonal to baseplate
Configuration	2-axis	2-axis
Rise/fall time (T _r)	≤ 4 μs	≤ 4 μs
Access time (T _a)	≤ 6 μs	≤ 6 μs
Input Fiber type/length	Panda PM480 / 1 m	Panda PM850 / 1 m
Fiber Jacket	900μm Hytrel tubing	900μm Hytrel tubing
Fiber connectors	FC/APC	FC/APC
Output free space beam diameter (1/e ²)	Nom 3 mm – divO 0.25mrd	Nom 3,4 mm – divO 0.35mrd
Frequency range	50 MHz per axis	36 MHz per axis
Output scan angle ΔΘ	40,9 mrd per axis	47 mrd per axis
Optical Resolution ΔΘ/divO	163	134
Insertion loss across full scan	≤ 5dB (Efficiency > 30%)	≤ 5dB (Efficiency > 30%)
Max input optical power (CW)	300 mW	2 W
Input impedance	50 Ω	50 Ω
V.S.W.R.	< 2.5:1	< 2.5:1
RF Power	< 1W per axis	< 2W per axis
Weight	Nom 250	Nom 250
Packaging	IN PRO 419	IN PRO 419
Operating Temperature (non condensing)	+10 to +40	+10 to +40
Storage Temperature (non condensing)	-40 to +65	-40 to +65

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- Input side : Fiber-coupled.
- Output side : Free-space with Fused Silica Window as protection element.
- Other wavelengths on request.
- 1-axis version on request.



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OUTLINE DRAWING(mm)

