

Preliminary

AOTFnC-400.650-4Fio-PM

Fiber coupled 4 ports Polychromatic Visible AOM

**Input/Output Fiber pigtailed polychromatic AOM 450-700 nm
With 4 ports input coupler**

- No Adjustment –Plug&play
- Polarization Maintaining Fibers
- PM fibers 450-700 nm

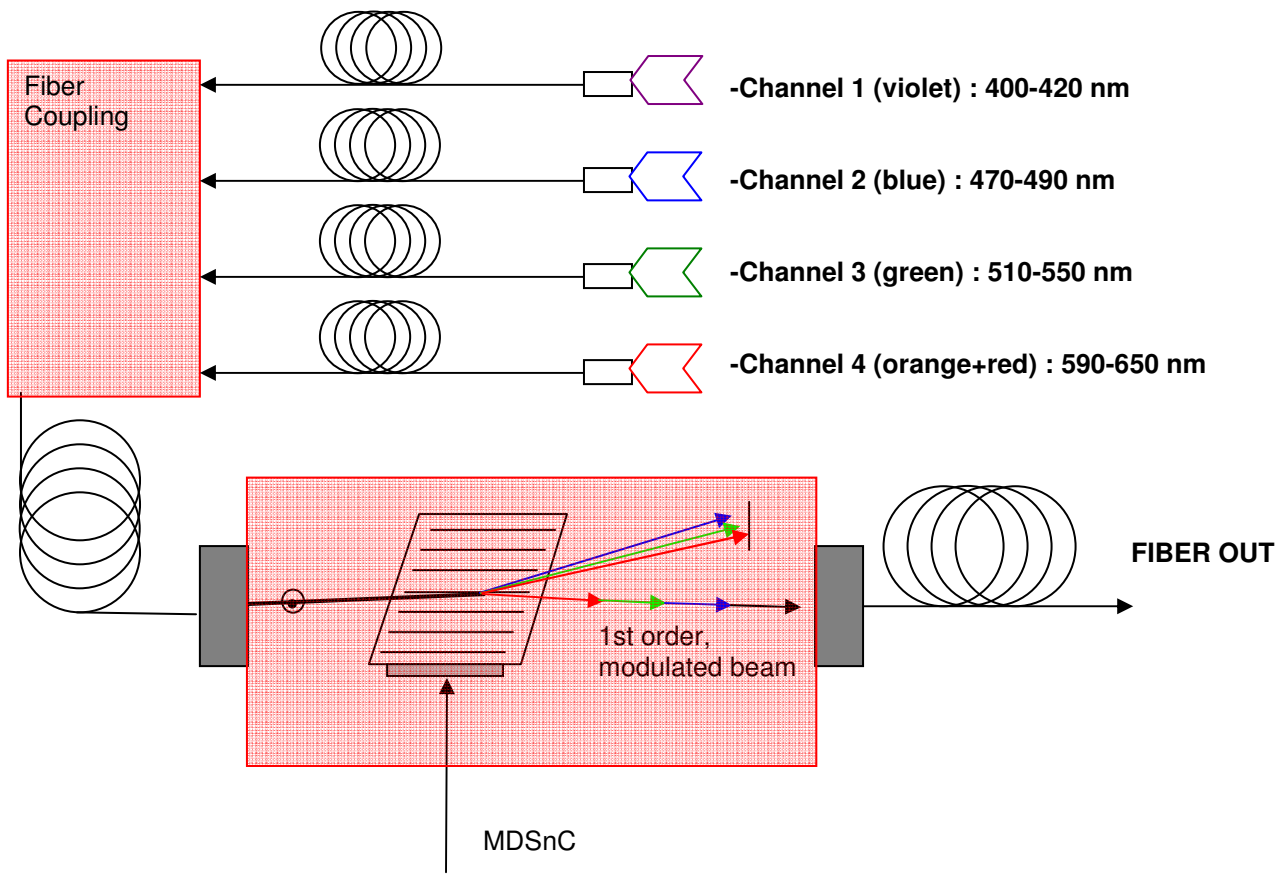
Description :

The **Four-channels fiber-coupled polychromatic modulator** consists of a highly efficient acousto-optic tunable filter assembly that is fiber coupled with Polarisation maintaining fibers for input and output. The polychromatic modulator has 4 fiber inputs corresponding to 4 channels distributed over visible range as follow :

- Channel 1 (violet) : 400-420 nm
- Channel 2 (bleu) : 470-490 nm
- Channel 3 (green) : 510-550 nm
- Channel 4 (orange+red) : 590-650 nm

Its operation is strongly dependent of optical polarization. The light should enter the fiber with a linear optical polarization along the slow axis of the fiber. The polychromatic modulator is assembled in such a way, the optical polarization remains along the slow axis at the output fiber. The standard fiber connector used is FC/PC with the key aligned along the slow axis of the fiber.

Principle of operation:



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Parameter	Specification	Measurement
Interaction material	TeO ₂	
Interaction Type Acoustic Mode	Anisotropic, Shear	
Spectral bands	Ch1 : 400-420 nm Ch2 : 470-490 nm Ch3 : 520-550 nm Ch4 : 590-650 nm	
Spectral resolution	1-4 nm	
Insertion Loss ⁽¹⁾	< 10 dB (typ. < 8 dB)	
Extinction Ratio (first order On/Off)	> 50 dB	
Polarization Extinction Ratio	> 13 dB	
Rise/fall time	< 3 μs	
Temperature stabilization	TN High accuracy included	
Fiber type	Polarisation maintaining	
Fiber connectors	Super FC/PC	
RF power	< 1 W all lines (MDS4C-B66-74.158)	
VSWR	< 2 : 1	

(1) This spec includes : optical transmission through the fiber and the crystal, diffraction efficiency and coupling losses. Losses at FC connectors are not included.