

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.



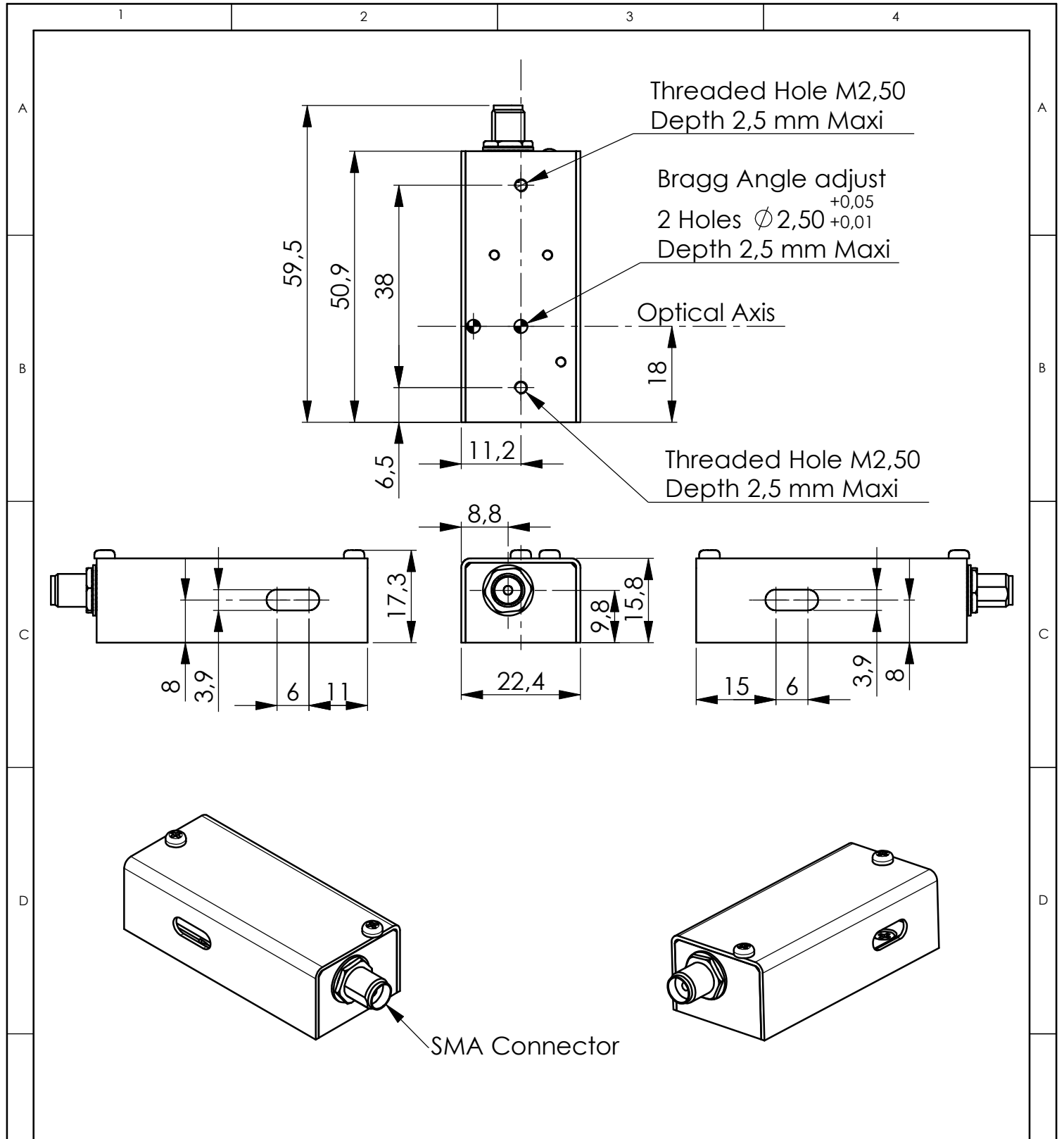
Features


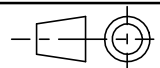
- Large active aperture & separation angle.
- Linear polarization.
- High diffraction efficiency.
- Low RF power consumption.

	Units	Min	Nom	Max
Material-Acoustic mode-Velocity		TeO ₂ [S] – 650 m/s		
Optical Wavelength range (AR coated) (λ)	nm	458	-	670
Carrier Frequency / Frequency shift	MHz	+/-110		
Transmission	%	95	98	
Input / Output Polarization		Linear/Polarization flip ≈90°		
Active Aperture	mm ²	3 x 3		
Beam diameter (1/e ²)(φ)	mm	0.5		2.5
Rise/fall time (T _r)	μs	0.5		2.5
Analog Amplitude Modulation Bandwidth (-3dB) (F _{-3dB})	kHz			960
Separation Angle (0-1)	mrd	77		113
Static Extinction Ratio	dB	30		
*Diffraction Efficiency (η)	%	85	90	
Max optical power density	W/mm ²		5	
Input impedance	Ω		50	
V.S.W.R.			< 1.2:1	
RF Power (P)	W		0.15	1
Connector		SMA female		
Size	mm ³	50.9 x 22.4 x 17.3		
Weight	g		50	
Packaging		IN PRO 050		
Operating Temperature (non condensing)	°C	+10	+25	+40
Storage Temperature (non condensing)	°C	-20		+50
RoHS Compliance			Yes	

* Diffraction efficiency is beam diameter and wavelength dependent.

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



B	31/01/07	E.D	Mise en page	
A	28/03/06	A.A	Plan initial / Initial Drawing	
Index	Date	Auteur Author	Modifications	
Conception Design	E.D	PLAN D'INTERFACE / OUTLINE DRAWING Référence / Reference IN-PRO-050		
Vérification Checking	L.F			
Tolérance Tolerance	ISO 2768mK			
Echelle Scale	1:1	 OPTO-ELECTRONIC A.A. SA OPTO-ELECTRONIQUE DIVISION 18, rue Nicolas Appert F-91898 ORSAY tel : 08 11 09 76 76 fax : 01 76 91 50 31		
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