

## Product Overview

This modulator has been specially designed for high power and fast rise time application. They can be used as intensity/amplitude modulation as well as frequency shifters at 240 MHz or with the variable version 240 +/- 20 MHz.

## Features

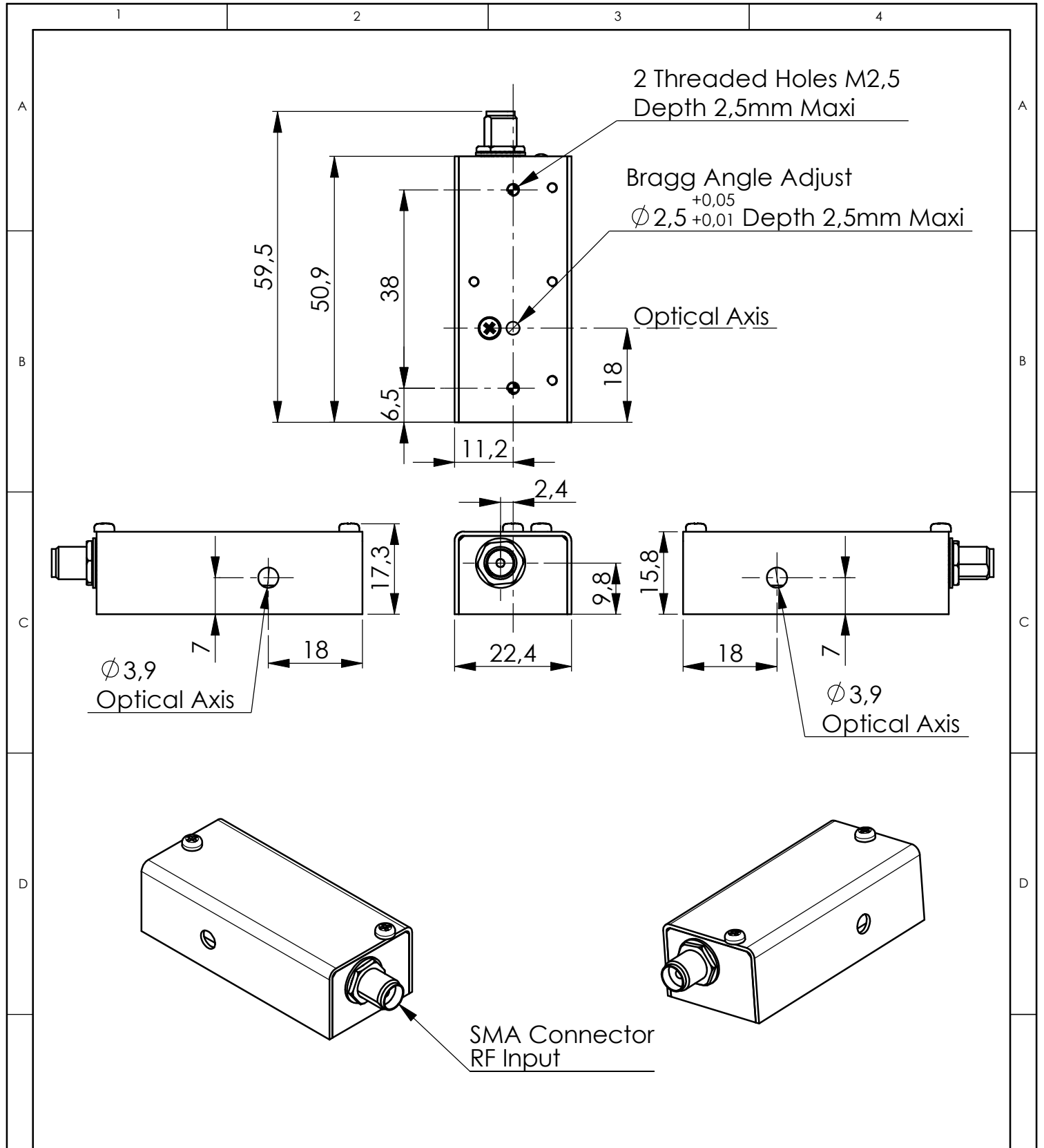
- Small rise time
- High power
- Linear polarization
- High diffraction efficiency


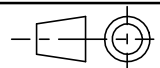


	Units	Min	Nom	Max
Material-Acoustic mode-Velocity		Fused Silica [L] – 5960 m/s		
Optical Wavelength range ( AR coated) ( $\lambda$ )	nm	325		425
Carrier Frequency / Frequency shift	MHz	+/-240		
Transmission	%	95	98	
Input / Output Polarization with ref to baseplate		Linear vertical		
Active Aperture	mm <sup>2</sup>	0.2 x 1		
Beam diameter (1/e <sup>2</sup> )( $\phi$ )	$\mu$ m	80		150
Rise/fall time ( $T_r$ )	ns	8.8		16.5
Analog Amplitude Modulation Bandwidth (-3dB) ( $F_{-3dB}$ )	MHz			54.5
Separation Angle (0-1)	mrd	13		17
Static Extinction Ratio	dB	30		
*Diffraction Efficiency ( $\eta$ )	%	80	85	
Optical power density	W/mm <sup>2</sup>	10		
Input impedance	$\Omega$		50	
V.S.W.R.			< 1.2:1	
RF Power (P)	W			2.2
Connector		SMA female		
Size	mm <sup>3</sup>	50.9 x 22.4 x 17.3		
Weight	g		50	
Packaging		IN PRO 154		
Operating Temperature (non condensing)	°C	+10	+25	+40
Storage Temperature (non condensing)	°C	-40		+65
RoHS Compliance		Yes		
OPTION MQ240-B40A0.2-UV		Frequency range 240+/-20MHz, Scan angle 2.85mrd @325, Efficiency >70% over full range		

\*Diffraction efficiency is beam diameter and wavelength dependant

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



A	01/02/07	E.D	Plan initial / Initial Drawing	
Indice Index	Date	Auteur Author	Modifications	
Conception Design	E.D	PLAN D'INTERFACE / OUTLINE DRAWING		 <b>OPTO-ELECTRONIC</b> 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
Vérification Checking	L.F			
Tolérance Tolerance	ISO 2768mK	Référence / Reference		
Echelle Scale	1:1	IN-PRO-154		
	Format A4	Ce document est la propriété de A.A.SA. Il est strictement interdit de reproduire ce document ou une partie sans l'autorisation de A.A.SA. This document is the property of A.A.SA. It is strictly prohibited to reproduce this document or a part without the authorization of A.A.SA.		Folio / Sheet 1/1
				Indice / Index A