

Product Overview

These modulators have been specially designed for applications where high optical power is involved and TeO2 cannot be used. Due to the large aperture and in most cases, no additional optics is required. They cover the VIS range up to 650 nm and they are suitable for DPSS 532 nm or AR + lasers.

Common applications include intensity modulators, fixed frequency shifters and also variable frequency shifters in the range 110 +/- 15 MHz.



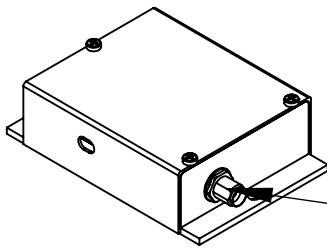
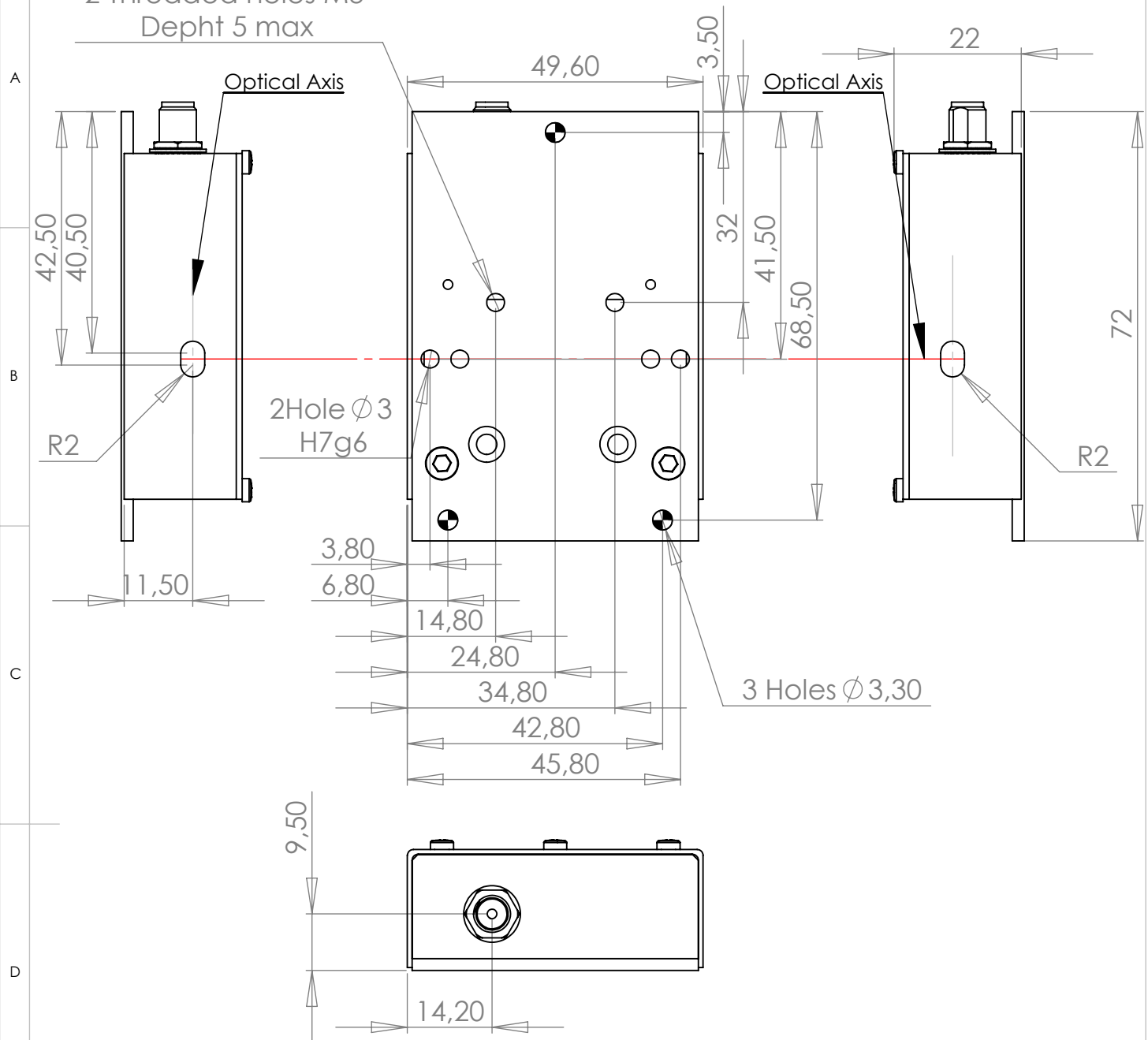
Features

- High laser power.
- Large aperture.
- Linear polarization.
- High diffraction efficiency.

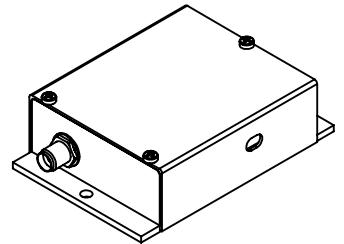
	Units	Min	Nom	Max
Material-Acoustic mode-Velocity		Crystal quartz [L] – 5740 m/s		
Optical Wavelength range (AR coated) (λ)	nm	458	532	650
Carrier Frequency / Frequency shift	MHz	+/-110		
Transmission	%	95	98	
Input / Output Polarization with ref to baseplate		Linear vertical		
Active Aperture	mm ²	2 x 2		
Beam diameter (1/e ²)(φ)	mm	0.5		1.6
Rise/fall time (T _r)	ns	57.5		184
Analog Amplitude Modulation Bandwidth (-3dB) (F _{-3dB})	MHz			8.3
Separation Angle (0-1)	mrd	10.2		17
Static Extinction Ratio	dB	30		
Diffraction Efficiency (η)	%	85	90	
Optical power density	W/mm ²	100		
Input impedance	Ω		50	
V.S.W.R.			< 1.2:1	
RF Power (P)	W			5
Connector		SMA female		
Size	mm ³	72 x 49.6 x 22		
Weight	g		150	
Packaging		IN PRO 233		
Operating Temperature (non condensing)	°C	+10	+25	+40
Storage Temperature (non condensing)	°C	-40		+65
RoHS Compliance		Yes		
OPTION MCQ110-B30A2-VIS		Frequency range 110+/-15MHz, Scan angle 2.78mrd @532, Efficiency >70% over full range		

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

2 Threaded holes M3
Depth 5 max



SMA Connector
Input



E	B	28/02/12	G.M	Rajout cotation oblong.
	A	24/02/09	E.V	Plan initial / Initial Drawing
	Indice Index	Date	Auteur Author	Modifications
F	Conception Design	E.V		PLAN D'INTERFACE / OUTLINE DRAWING
	Vérification Checking			
	Tolérance Tolerance	ISO 2768mK		Référence / Reference IN-PRO-233
	Echelle Scale	1:1		
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