

## Product Overview

These free space modulators operate at 250MHz with a possible RF range +/- 50 MHz. They are provided at various wavelength ranges as from 450 nm up to 1100 nm. The intended application can be fast intensity modulation, pulse picking as well as frequency shifting (fixed and variable).



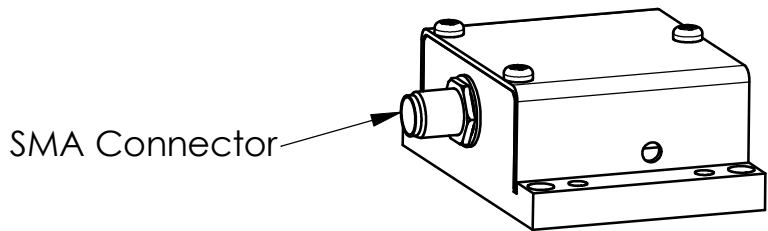
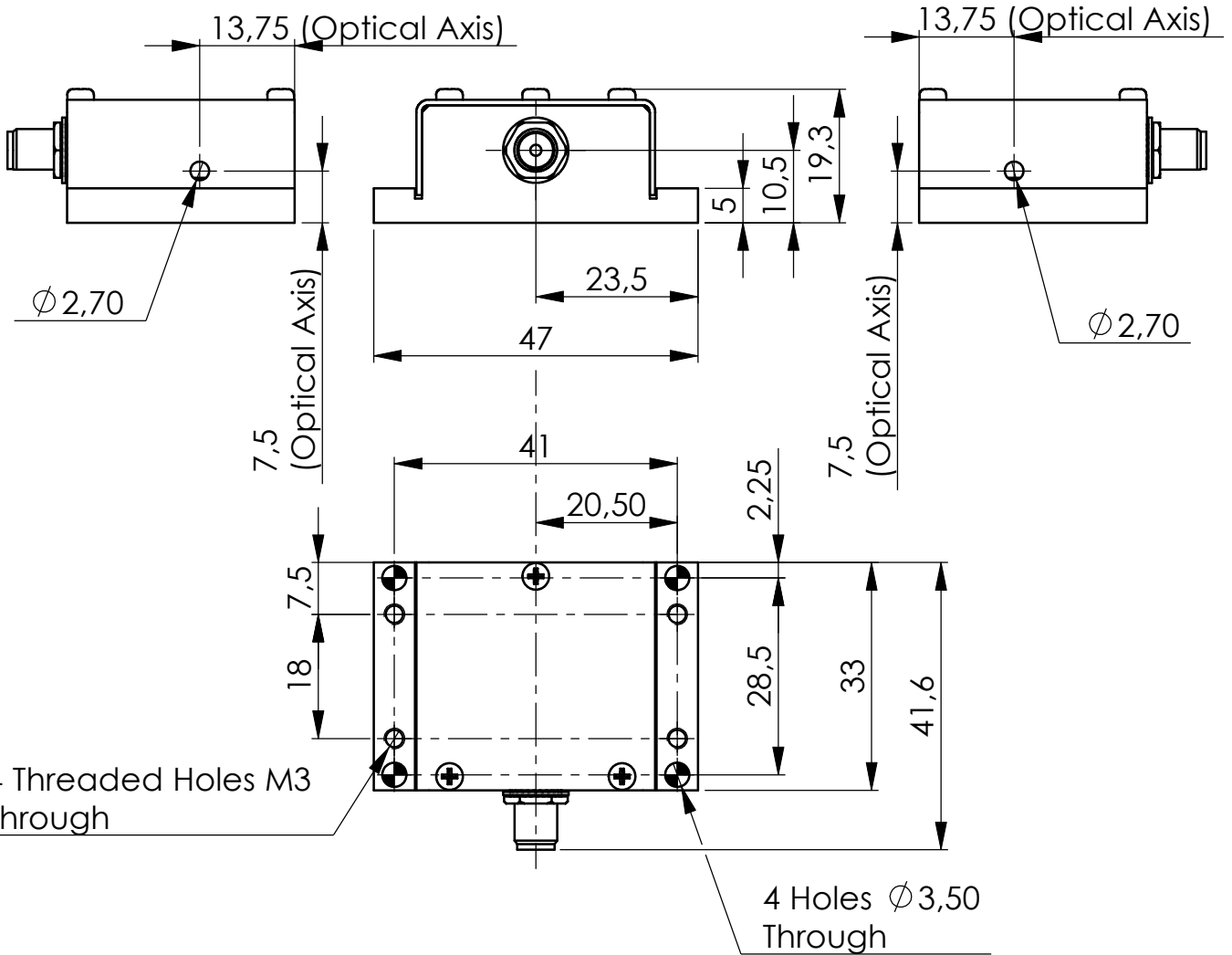
## Features


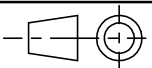
- Small rise time
- High diffraction efficiency

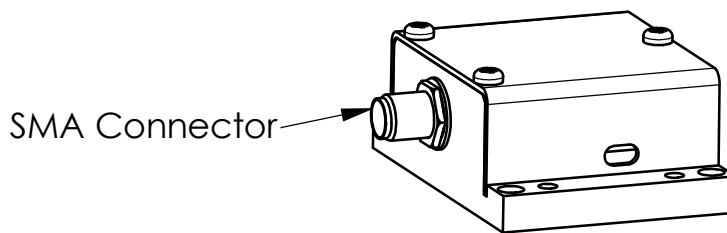
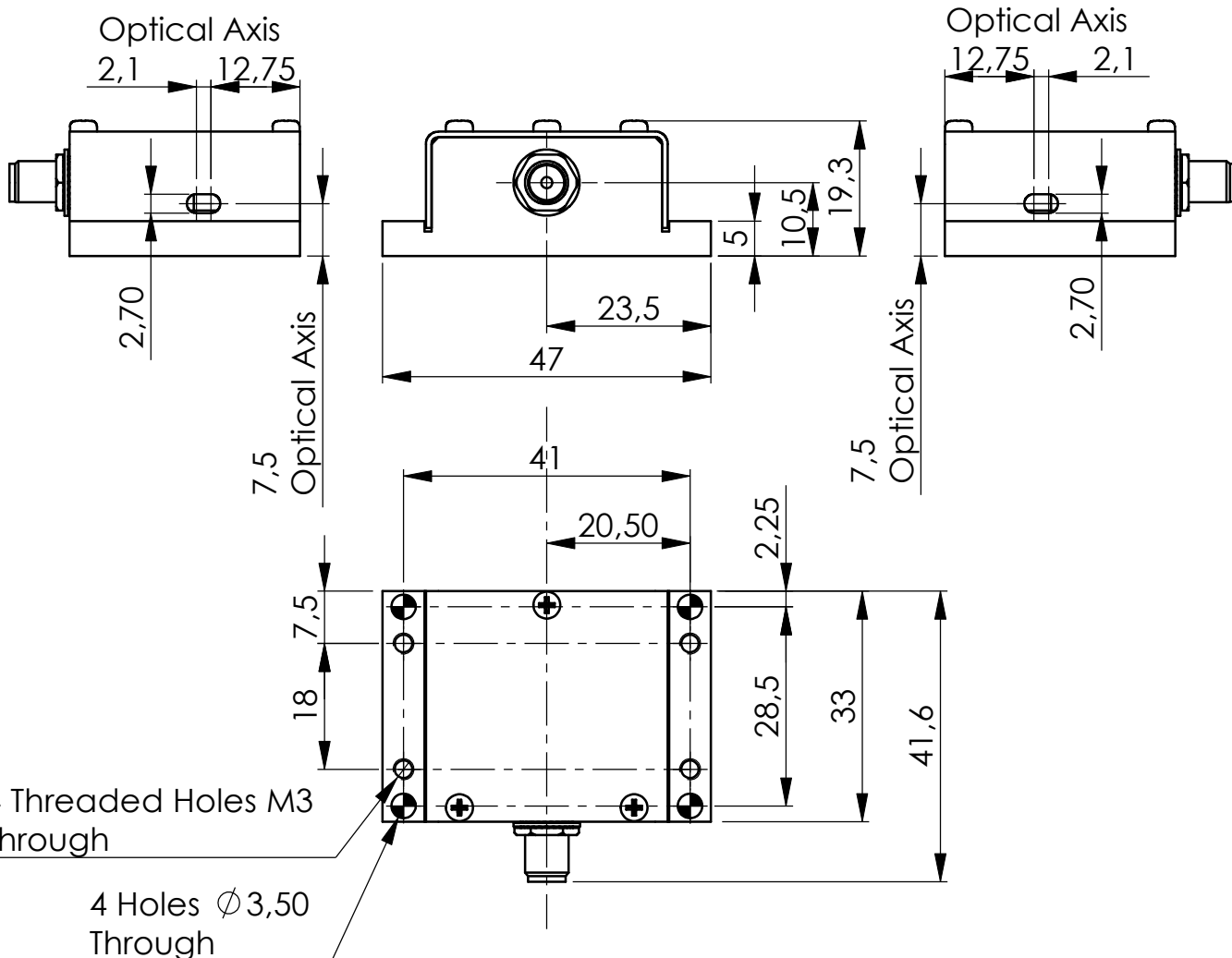
		Units	Min	Nom	Max
Material-Acoustic mode-Velocity			TeO2 [L] – 4200 m/s		
Wavelength range	VIS	nm	450		700
	800		700		950
	1064		980		1100
Carrier Frequency / Frequency shift		MHz	+/-250		
Transmission		%	95	98	
Input / Output Polarization			Linear / Linear		
Active Aperture		mm <sup>2</sup>	0.5 x 1		
Beam diameter (1/e <sup>2</sup> )(φ)		mm	0.2		0.3
Rise/fall time (T <sub>r</sub> )		ns	32		48
Analog Amplitude Modulation Bandwidth (-3dB) (F <sub>-3dB</sub> )		MHz			15
Separation angle	VIS	mrd	26.8		41.6
	800		41.6		56.5
	1064		58.3		65.5
Static Extinction Ratio		dB	33		
*Diffraction Efficiency (η)	VIS	%	85		
	800		85		
	1064		80		
Optical power density (CW)	VIS	W/mm <sup>2</sup>			5
	800/1064				10
Input impedance		Ω		50	
V.S.W.R.				< 1.2:1	
RF Power (P)	VIS	W			1,6
	800/1064				2,2
Size		mm <sup>3</sup>	47. x 41.6 x 19.3		
Weight		g		50	
Packaging			IN PRO 002 or IN PRO 003		
Operating Temperature (non condensing)		°C	+10	+25	+40
Storage Temperature (non condensing)		°C	-40		+65
RoHS Compliance			Yes		
OPTION MT250-B100A0.5-xx			Frequency range 250+/-50MHz		

\*Beam diameter and wavelength dependent.

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



B	15/12/06	E.D	Mise en page
A	25/04/02	F.C	Plan initial / Initial Drawing
Index	Date	Auteur Author	Modifications
Conception Design	E.D	<b>PLAN D'INTERFACE / OUTLINE DRAWING</b>	
Vérification Checking	L.F		
Tolérance Tolerance	ISO 2768mK	Référence / Reference  <b>IN-PRO-002</b>	
Echelle Scale	1:1	 <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	
	Format A4		
		Folio / Sheet 1/1	Indice / Index B



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