MT250-A0.5-xx

AO MODULATOR/SHIFTER

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

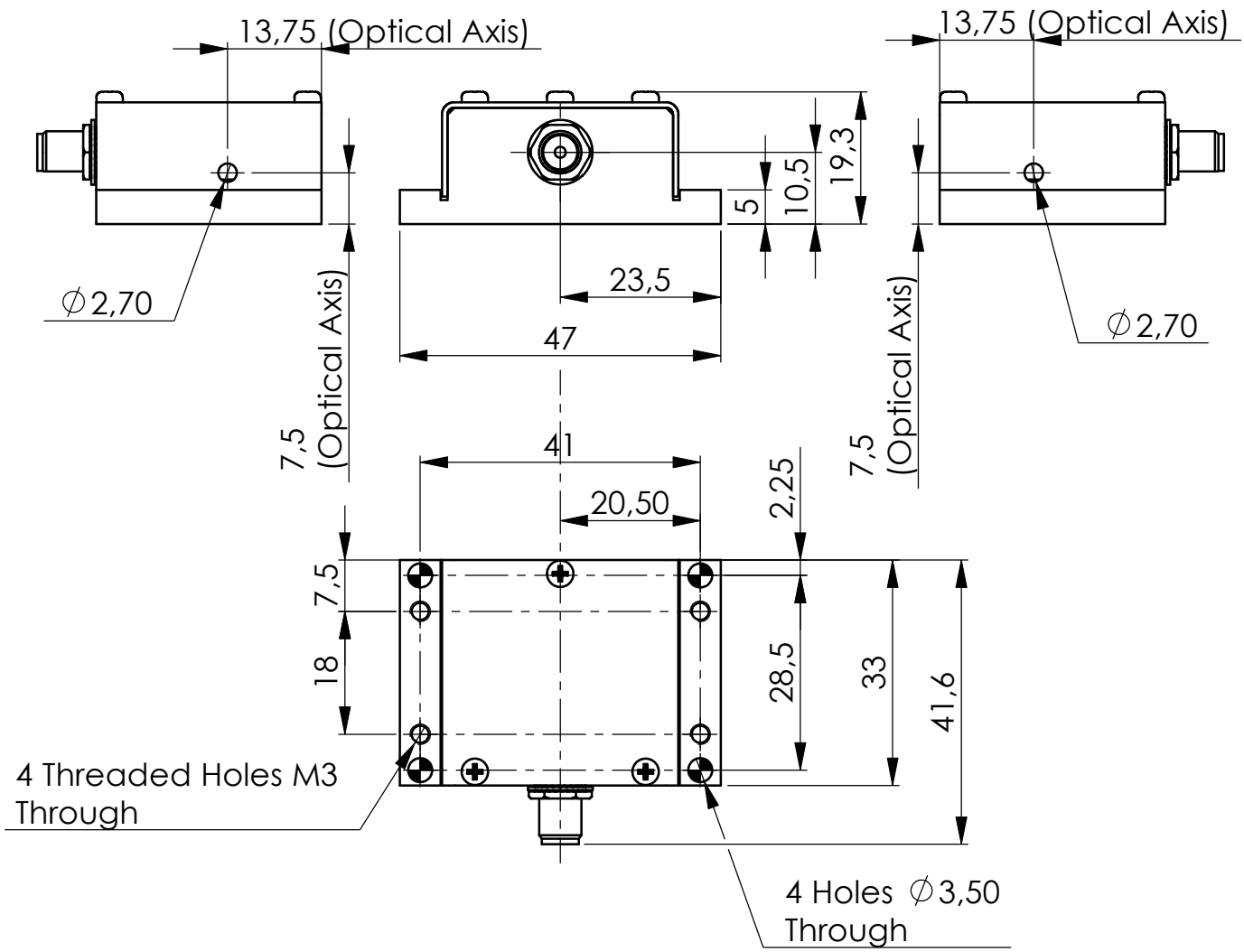
		Units	Min	Nom	Max
Material-Acoustic mode-Velocity				*TeO2 [L] – 4200 m/s*	
Wavelength range	VIS	nm	*450*		*700*
	800		*700*		*950*
	1064		*980*		*1100*
Carrier Frequency / Frequency shift		MHz		*+/-250*	
Transmission		%	*95*	*98*	
Input / Output Polarization				*Linear / Linear*	
Active Aperture		mm²		*0.5 x 1*	
Beam diameter ($1/e^2$)(ϕ)		mm	*0.2*		*0.3*
Rise/fall time (T_r)		ns	*32*		*48*
Analog Amplitude Modulation Bandwidth (-3dB) (F_{-3dB})		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/mm²			*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		mm³		*47. x 41.6 x 19.3*	
Weight		g		*50*	
Packaging				*IN PRO 002 or IN PRO 003*	
Operating Temperature (non condensing)		℃	*+10*	*+25*	*+40*
Storage Temperature (non condensing)		℃	*-20*		*+50*
RoHS Compliance				*Yes*	
OPTION MT250-B100A0.5-xx				*Frequency range 250+/-50MHz*	

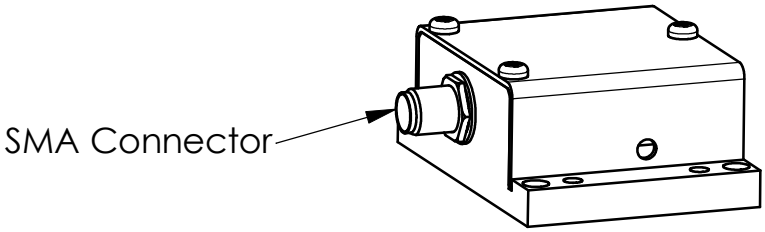
**Beam diameter and wavelength dependent.*

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

AA OPTO-ELECTRONIC
18, rue Nicolas Appert
91898 ORSAY FRANCE

Tel: +33 (0)1 76 91 50 12
Fax: +33 (0)1 76 91 50 31
www.aaoptoelectronic.com





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B	15/12/06	E.D	Mise en page
A	25/04/02	F.C	Plan initial / Initial Drawing

Conception Design	E.D
Vérification Checking	L.F
Tolérance Tolerance	ISO 2768mK
Echelle Scale	1:1
Format	A4

PLAN D'INTERFACE / OUTLINE DRAWING

Référence / Reference

IN-PRO-002

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

Folio / Sheet	Indice / Index
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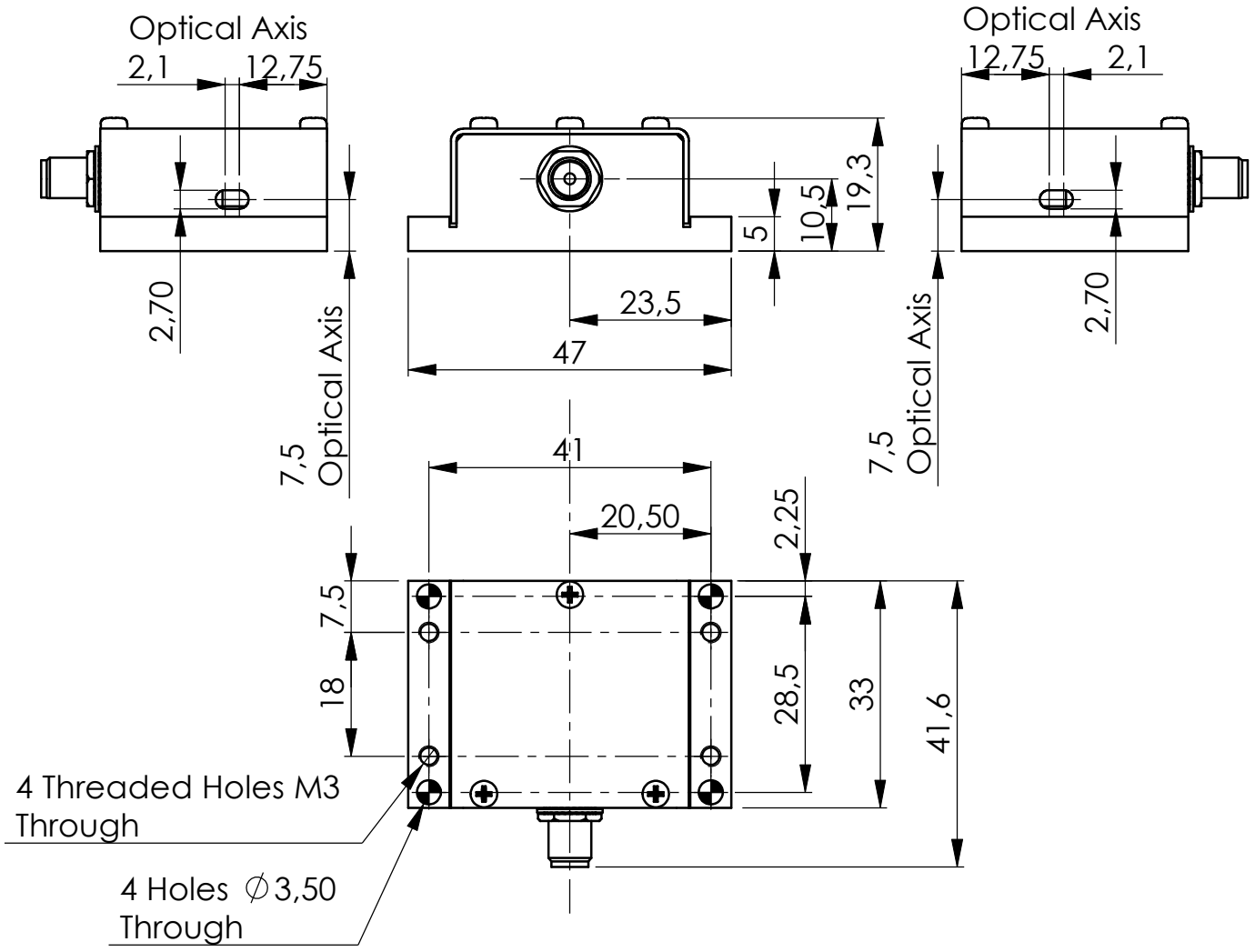

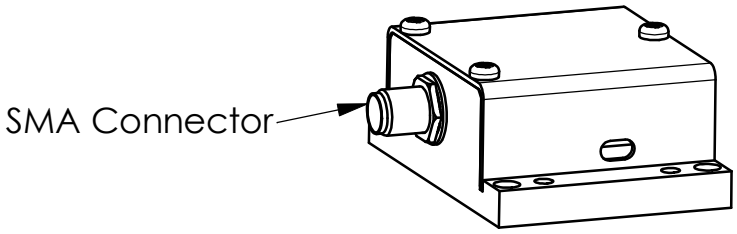

Indice Index	Date	Auteur Author	Modifications
B	15/12/06	E.D	Mise en page
A	09/03/06	A.A	Plan initial / Initial drawing

Conception Design	E.D	PLAN D'INTERFACE / OUTLINE DRAWING	OPTO-ELECTRONIC
Vérification Checking	L.F		
Tolérance Tolerance	ISO 2768mK	Référence / Reference	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
Echelle Scale	1:1	IN-PRO-003	
Format A4			Folio / Sheet 1/1 — Indice / Index B