

# MCQxx-Ax-L1064-Z32-Cxx

## Product Overview

These modulators are made of Quartz and due to their hard V-coating with low reflectivity, they have got high damaged threshold. They are mainly intended for intensity modulation in high optical power applications but can be used for fixed frequency shifting as well: +/- 40 MHz or 80 MHz.



## FEATURES

- 1.06 μm design
- Linear polarization
- Air cooled.
- High damage threshold

## SPECIFICATIONS (T=25°C)

PARAMETER	RATING	UNIT
Material-Acoustic mode-Velocity	Crystal Quartz[L] – 5740	m/s
Wavelength range	1030–1080	nm
Transmission	>99	%
Input / Output Polarization	Linear vertical / Linear vertical	
Rise/fall time (T <sub>r</sub> )	115	ns/mm
Static Extinction Ratio	>30	dB
Diffraction efficiency*	>80, nom 85	%
Optical Power density	500	MW/cm <sup>2</sup>
Input impedance	50	Ω
V.S.W.R.	< 1.2:1	
RF Power	15	W
Connector	SMA female, cable length 35	cm
Size	33 x 36.5 x 25.8	mm <sup>3</sup>
Weight	<35	g
Operating Temperature (non condensing)	+10 to +40	°C
Storage Temperature (non condensing)	-40 to +65	°C
RoHS Compliance	Yes	

\*Diffraction efficiency is beam diameter and wavelength dependant.

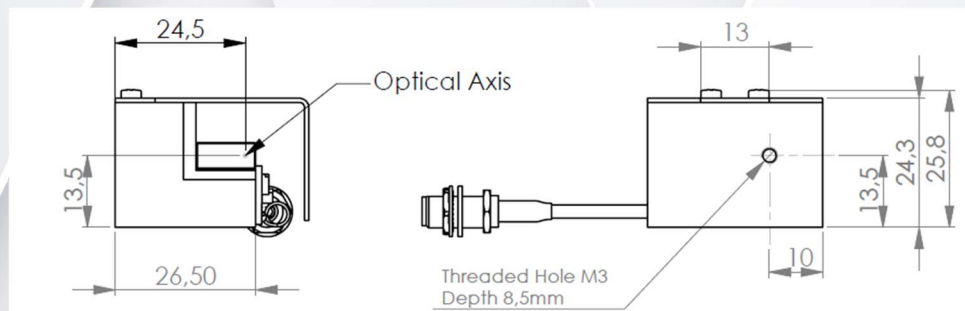
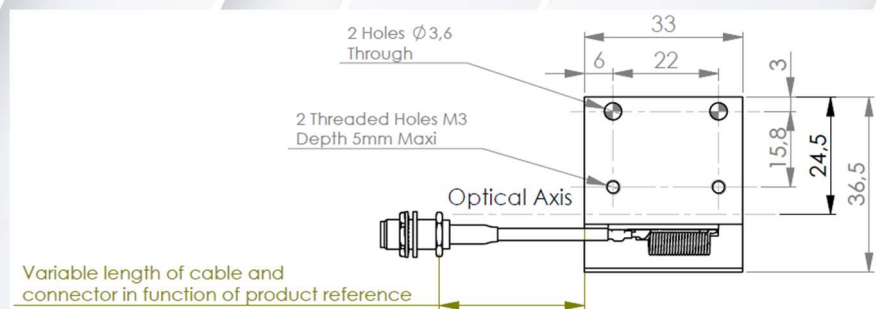
$$T_r = 0.66 \frac{\phi}{V} * F_{-3dB} = \frac{0.48}{T_r} * \Delta\theta = \frac{\lambda F}{V} * \frac{P_1}{P_2} = \frac{\lambda_1}{\lambda_2}$$

## MCQxx-Ax-L1064-Z32-Cxx

### Versions

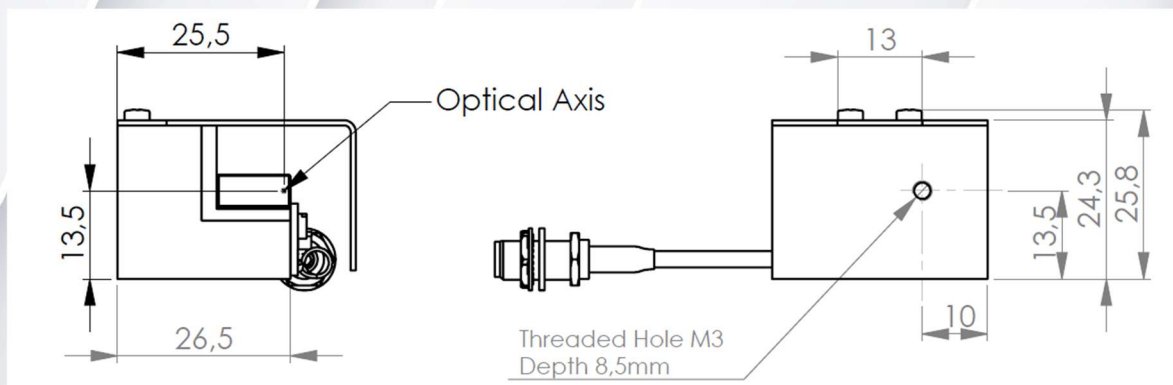
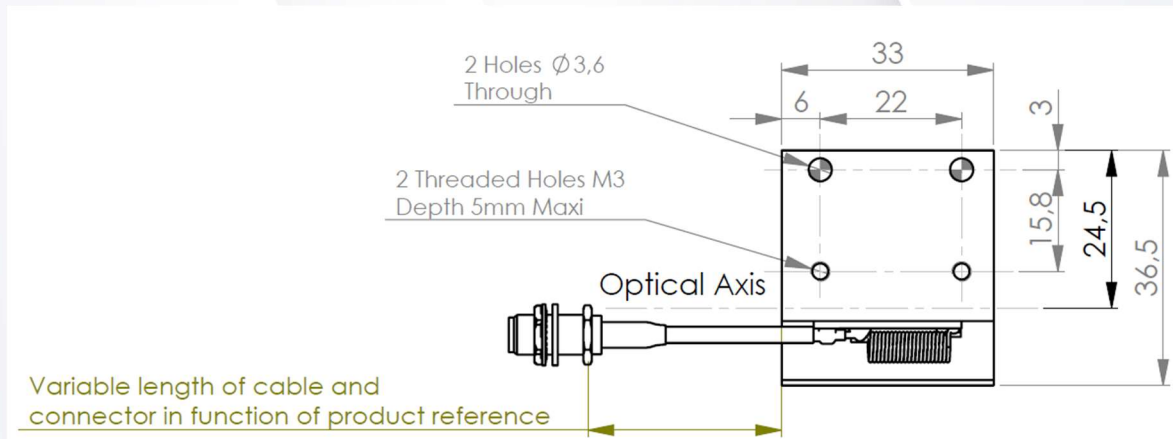
	MCQ40-A1.5-L1064-Z32-Cxx	MCQ80-A2-L1064-Z32-Cxx	MCQ80-A0.8-L1064-Z32-Cxx
Carrier/Shift Frequency	+/- 40 MHz	+/- 80 MHz	+/- 80MHz
Active aperture	1.5 x 1.5 mm <sup>2</sup>	2x2 mm <sup>2</sup>	0.8 x 0.8 mm <sup>2</sup>
Minimum rise time	80 ns (Ø 0.7 mm)	80 ns (Ø 0.7mm)	30 ns (Ø 0.26mm)
Separation angle (0-1)	>7.4 mrd	>14.8 mrd	>14.8 mrd
Maximum RF power	15 W	15 W	15 W
Packaging	IN PRO 181	IN PRO 343	IN PRO 406

### OUTLINE DRAWING IN PRO 181, mm



## MCQxx-Ax-L1064-Z32-Cxx

### OUTLINE DRAWING IN PRO 406, mm



## MCQxx-Ax-L1064-Z32-Cxx

### OUTLINE DRAWING IN PRO 343, mm

