

# MQ180-Ax-xx—MQ180-BxAX-xx

## Product Overview

These modulators have been specially designed for high power and fast rise time application. The intended application can be amplitude modulation as well as frequency shifting (fixed and variable) or low-resolution deflection.

## FEATURES

- Fast rise time/access time.
- Linear polarization
- High diffraction efficiency



## SPECIFICATIONS (T=25°C)

PARAMETER	RATING	UNIT
Material-Acoustic mode-Velocity	Fused Silica-L - 5960	m/s
Carrier Frequency / Frequency shift	+/-180	MHz
Transmission	≥95, nom 98	%
Input / Output Polarization	Linear vertical	
Rise/fall time (T <sub>r</sub> )	110	ns/mm
Static Extinction Ratio	>30	dB
Input impedance	50	Ω
V.S.W.R.	< 1.2:1	
Connector	SMA female	
Size	59.5 x 22.4 x 17.3 (UV) / 62.6 x36 x 17.3 (VIS)	mm <sup>3</sup>
Weight	Nom 100	g
Packaging	IN PRO 154 (UV) / IN PRO 136 (VIS)	
Operating Temperature (non condensing)	+10 to +40	°C
Storage Temperature (non condensing)	-40 to +65	°C
RoHS Compliance	Yes	

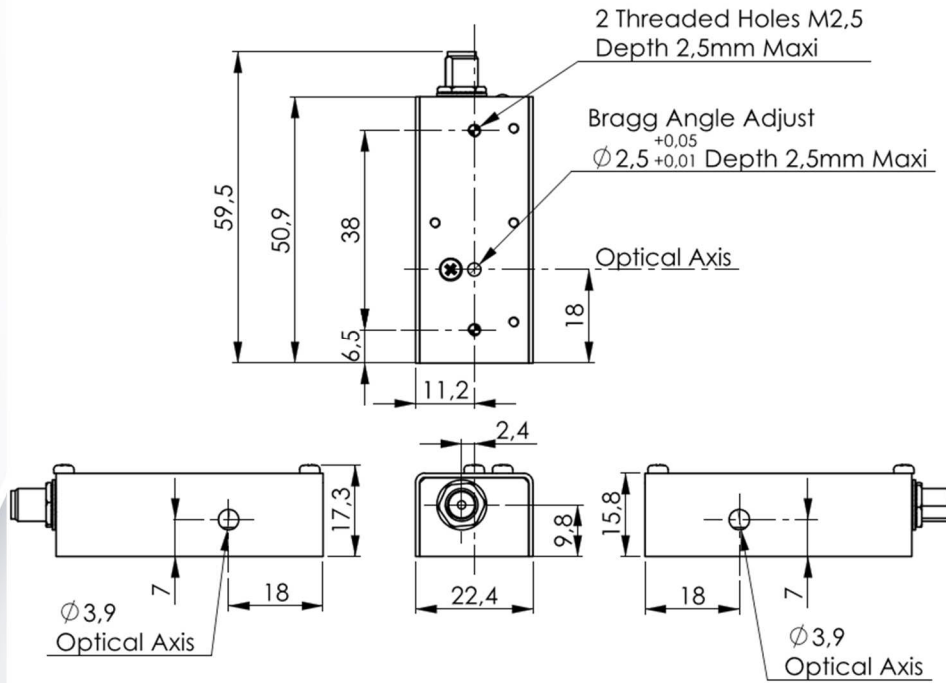
## Versions

	MQ180-A0.2-UV	MQ180-A0.25-VIS
Wavelength	325-442nm	440-670nm
Active aperture	0.2x1 mm <sup>2</sup>	0.25x1 mm <sup>2</sup>
Minimum rise time	10 ns (∅ 0.09 mm)	10 ns (∅ 0.09 mm)
Separation angle (0-1)	>8 mrd	>13 mrd
Diffraction efficiency	>85 %	>80 %
Maximum RF power	2.5 W	4 W
Maximum Laser power density	10 W/mm <sup>2</sup>	100 W/mm <sup>2</sup>
Option Variable frequency	180+/-15 MHz M180-B30A0.2-UV Efficiency typ >70 %	180+/-15 MHz MQ180-B30A0.25-VIS Efficiency typ >60 %

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

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## OUTLINE DRAWING IN PRO 154, mm (UV)



## OUTLINE DRAWING IN PRO 136, mm (VIS)

