

## Free-space AOM (Acousto-Optic Modulator)

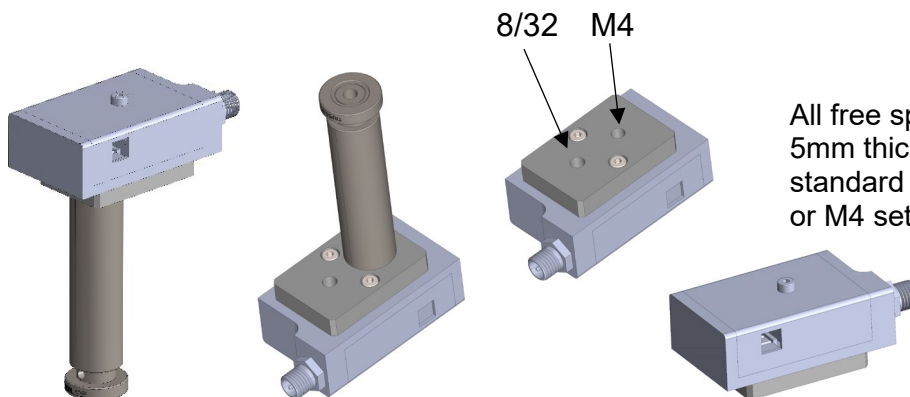
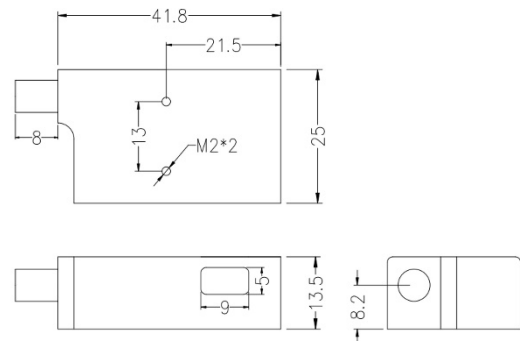
High speed 200 MHz version – 850 nm

Reference: 850FSAOM-200-0.3

Technology/Crystal: TeO<sub>2</sub>\*

| SPECIFICATIONS                                                                                                            | Unit               | Min          | Typ.             | Max | Comments     |
|---------------------------------------------------------------------------------------------------------------------------|--------------------|--------------|------------------|-----|--------------|
| AOM Material                                                                                                              |                    |              | TeO <sub>2</sub> |     |              |
| Wavelength                                                                                                                | nm                 | 670          | 850              | 970 | Customizable |
| RF Frequency                                                                                                              | MHz                |              | 200              |     |              |
| Active Aperture                                                                                                           | mm                 |              | 0.3              |     |              |
| Input impedance                                                                                                           | Ω                  |              | 50               |     |              |
| Frequency shift                                                                                                           | MHz                |              | 200              |     |              |
| RF Power                                                                                                                  | W                  |              | 2.5              |     |              |
| Max Optical Input CW/average Power                                                                                        | W                  |              |                  | 15  |              |
| Max Optical Power/surface                                                                                                 | MW/cm <sup>2</sup> |              |                  | 50  |              |
| Efficiency (optimized beam conditions)                                                                                    | %                  | 80           | 85               |     |              |
| Rise/fall time (beam 150 μm)                                                                                              | ns                 |              | 24               |     |              |
| Rise/fall time (beam 50 μm)                                                                                               | ns                 |              | 8                |     |              |
| Crystal coating transmittance (per surface)                                                                               | %                  | 99.5         |                  |     |              |
| Electrical input interface                                                                                                |                    |              | SMA              |     |              |
| Working temperature                                                                                                       | °C                 | -20          |                  | 60  |              |
| Storage temperature                                                                                                       | °C                 | -30          |                  | 70  |              |
| Dimensions                                                                                                                | mm <sup>3</sup>    | 41.8*25*13.5 |                  |     |              |
| Mounting holes diameter                                                                                                   | mm                 |              | 2*M2             |     |              |
| Diffraction Angle = $\lambda \cdot f / V$<br>(with : $\lambda$ : wavelength (in nm) ; f : RF frequency (in MHz) ; V=4200) | mrad               |              | 40.5             |     |              |

\*: See our tutorial: [fiber modulator](#)



All free space AOMs are supplied with a 5mm thick adapter plate compatible with standard pedestal bases with either 8/32 or M4 setscrews.