

## SPECIFICATIONS

|                          |                        |            |             |
|--------------------------|------------------------|------------|-------------|
| AO Medium                | TeO2                   |            |             |
| Acoustic Velocity        | 4.2 mm/μs              |            |             |
| Active Aperture*         | 2.5 mm 'L' X           | 0.6 mm 'H' |             |
| Center Frequency (Fc)    | 110 MHz                |            |             |
| RF Bandwidth             | 24 MHz @               | -10 dB     | Return Loss |
| Input Impedance          | 50 Ohms Nominal        |            |             |
| VSWR @ Fc                | 1.3 :1 Max             |            |             |
| Wavelength               | 442-633 nm             |            |             |
| Insertion Loss           | 4 % Max                |            |             |
| Reflectivity per Surface | 1 % Max                |            |             |
| Anti-Reflection Coating  | MIL-C-48497            |            |             |
| Optical Power Density    | 250 W/mm <sup>2</sup>  |            |             |
| Contrast Ratio           | 1000 :1 Min            |            |             |
| Polarization             | 90 ° To Mounting Plane |            |             |

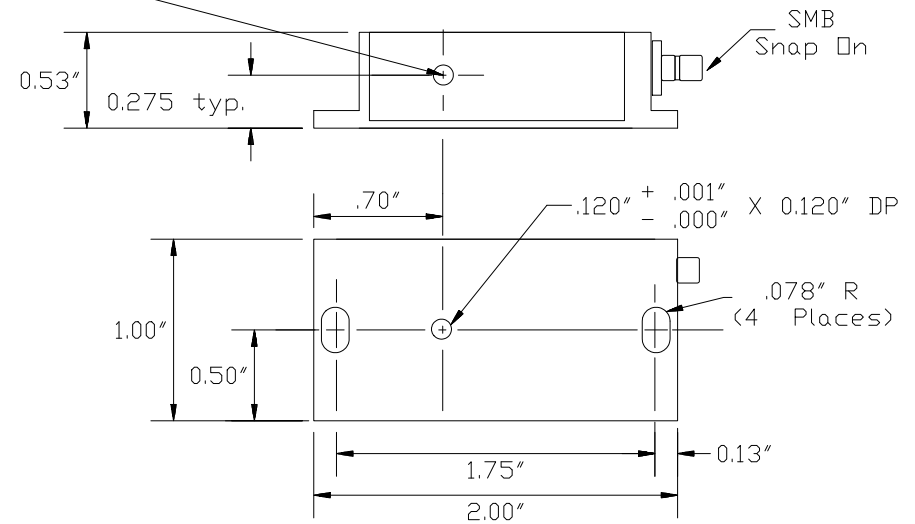
## PERFORMANCE VS WAVELENGTH

| Wavelength (nm)         | 442  | 488  | 515  | 633  |
|-------------------------|------|------|------|------|
| Saturation RF Power (W) | 0.29 | 0.39 | 0.43 | 0.65 |
| Bragg Angle (mr)        | 5.8  | 6.4  | 6.7  | 8.3  |
| Beam Separation (mr)    | 11.6 | 12.8 | 13.4 | 16.6 |

## PERFORMANCE VS BEAM DIAMETER

| Beam Diameter (μm)         | 113 | 130 | 200  | 500 |
|----------------------------|-----|-----|------|-----|
| at Wavelength (nm)         | 633 | 633 | 633  | 633 |
| Diffraction Efficiency (%) | 70  | 75  | 80   | 83  |
| Rise Time (nsec)           | 25  | 28  | 39   | 86  |
| Modulation Bandwidth       | 28  | 24  | 15.8 | 6.3 |
|                            | 20  | 10  | 5    | 1   |

## Outline Drawing:



## Document

10/31/13

Control

Notes:

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|                                         |     |                       |                                          |           |              |
|-----------------------------------------|-----|-----------------------|------------------------------------------|-----------|--------------|
| TOLERANCES:<br>.XX ± .01<br>.XXX ± .005 | DR  | A. Campi<br>10/4/2013 | <br>DESCRIPTION:<br><b>AOMO 3110-120</b> |           |              |
| MATERIAL:                               | CHK |                       |                                          |           |              |
| FINISH:                                 | APP |                       |                                          |           |              |
|                                         | APP |                       | PART NUMBER:<br>99-20068-01              | REV:<br>C | SHEET 1 OF 1 |

\*Active Aperture: Aperture over which performance specifications apply.