

## SPECIFICATIONS

|                          |                        |            |             |
|--------------------------|------------------------|------------|-------------|
| AO Medium                | TeO <sub>2</sub>       |            |             |
| Acoustic Velocity        | 4.2 mm/μs              |            |             |
| Active Aperture*         | 2.5 mm 'L' X           | 1.5 mm 'H' |             |
| Center Frequency (Fc)    | 200 MHz                |            |             |
| RF Bandwidth             | 50 MHz @               | -10 dB     | Return Loss |
| Input Impedance          | 50 Ohms Nominal        |            |             |
| VSWR @ Fc                | 1.3 :1 Max             |            |             |
| Wavelength               | 470-690 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

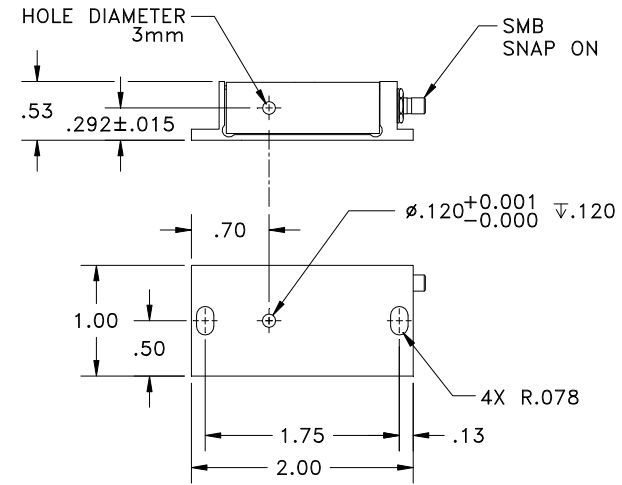
| Wavelength (nm)         | 470  | 532  | 633  | 690  |
|-------------------------|------|------|------|------|
| Saturation RF Power (W) | 0.4  | 0.6  | 0.9  | 1.1  |
| Bragg Angle (mr)        | 11.2 | 12.7 | 15.1 | 16.4 |
| Beam Separation (mr)    | 22.4 | 25.4 | 30.2 | 32.8 |

## PERFORMANCE VS BEAM DIAMETER

| Beam Diameter (μm)         | 1000 | 1000 | 1000 | 1000 |
|----------------------------|------|------|------|------|
| at Wavelength (nm)         | 470  | 532  | 633  | 690  |
| Diffraction Efficiency (%) | 85   | 85   | 85   | 85   |
| Rise Time (nsec)           | 159  | 159  | 159  | 159  |

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

## Outline Drawing:



Document

10/31/13

Control

### Notes:

- 1) All dimensions in inches unless specified otherwise.
- 2) cover Nickel plated

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|                                         |     |                    |                                                        |           |              |
|-----------------------------------------|-----|--------------------|--------------------------------------------------------|-----------|--------------|
| TOLERANCES:<br>.XX ± .01<br>.XXX ± .005 | DR  | T. NG<br>10/8/2013 | <br><b>AOMO 3200-1214</b><br>200 MHz Frequency Shifter |           |              |
| MATERIAL:                               | CHK |                    |                                                        |           |              |
| FINISH:                                 | APP |                    |                                                        |           |              |
|                                         | APP |                    | PART NUMBER:<br>97-03036-02                            | REV:<br>2 | SHEET 1 OF 1 |