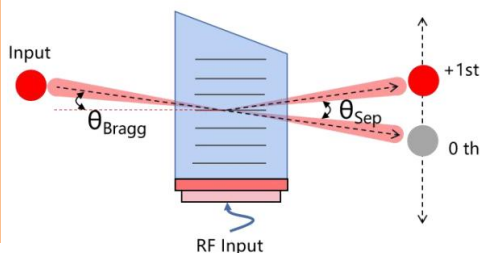


### AOFS Specifications 声光移频器产品规格书 FS1015-TS020\_000-030-633



## 1. SPECIFICATIONS (规格)

|  |   |
|--|---|
| Interaction material (介质材料)            | Tellurium dioxide (二氧化碲)                |
| Acoustic mode (声波模式)                   | Shear (切变波)                             |
| Operating wavelength (工作波长)            | 633 nm                                  |
| Polarization of incident beam (入射光偏振)  | Linear, horizontal to base (线偏振, 水平于基座) |
| Polarization of 1st order beam (1级光偏振) | Linear, vertical to base (线偏振, 垂直于基座)   |
| Polarization of 0 order beam (0级光偏振)   | Linear, horizontal to base (线偏振, 水平于基座) |
| Transmission (透过率)                     | >98 %                                   |
| Active aperture (有效孔径)                 | 3.0 mm                                  |
| Center frequency (Fc) (中心频率)           | 20 MHz                                  |
| Frequency shift bandwidth (FB) (移频带宽)  | 0 MHz                                   |
| Frequency drift / °C (频漂)              | < ±0.1 ppm                              |
| Diffraction efficiency (衍射效率)          | >85 %                                   |
| RF power (射频功率)                        | 0.3 W (max)                             |
| Input impedance (输入阻抗)                 | 50Ω Nominal                             |
| VSWR (驻波比) @Fc                         | < 1.2:1                                 |
| RF connector (射频接头)                    | SMA-F                                   |
| Cooling (散热方式)                         | Conduction-cooled (传导冷却)                |
| Shell material (外壳材料)                  | Aluminum alloy (铝合金)                    |

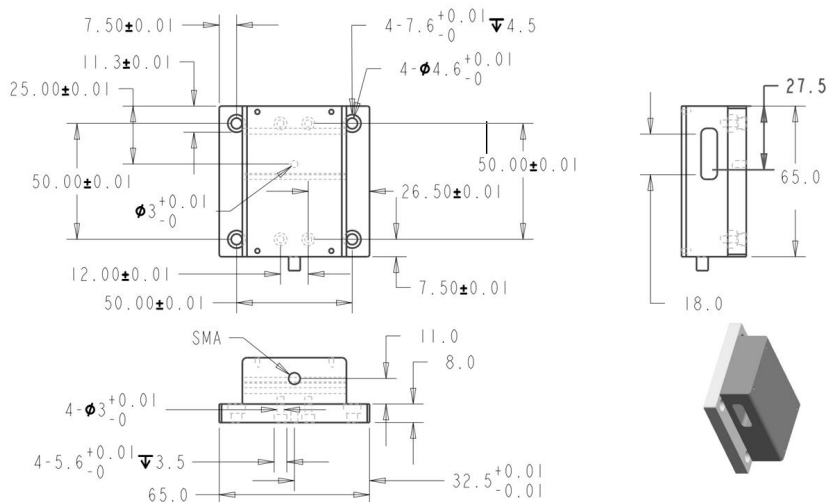
## 2. PERFORMANCE vs. WAVELENGTH (性能 vs. 波长)

|                            |           |
|----------------------------|-----------|
| Wavelength (光波长)           | 633 nm    |
| Separation angle (分离角) @Fc | 17.4 mrad |

### 3. ORDERING CODES (编码规则)

|        | Materials                                 | Acoustic type                  | Fc                       | DB  | Active aperture                           | Wavelength   |
|--------|---|--------------------------------|--------------------------|---|---|--|
| FS0001 | — X<br>QZ Q<br>TeO <sub>2</sub> T<br>Ge G | X<br>Longitudinal L<br>Shear S | XXX<br>027<br>041<br>080 | — XXX<br>000 0 MHz<br>003 3 MHz<br>010 10 MHz | — XXX<br>040 4 mm<br>060 6 mm<br>080 8 mm | — XXXX<br>1030 1030 nm<br>1064 1064 nm<br>9600 9600 nm |

### 4. DIMENSIONS (外形尺寸-mm)

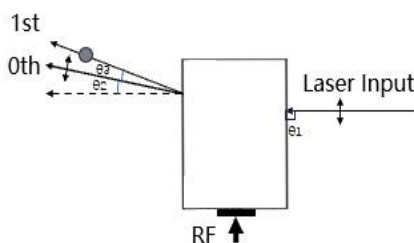


### 5. BEAM SPECIFICATION (光束规格)

Input angle  $\theta_1$  (入射角) :  $90^\circ \pm 1^\circ$   
Output angle  $\theta_2$  (出射角) :  $5.6^\circ \pm 0.2^\circ$   
Separation angle  $\theta_3$  (分离角) :  $1^\circ \pm 0.2^\circ$



\*环形光斑示意图



### 6. SUGGESTED RF DRIVER ELECTRONICS (建议驱动型号)

RD1029-020-24-002-CA

### 7. REVISION (版本)

| Number (版本号) | Revisions date (修订日期) | Revision (修改项目) | Revision description (修订内容说明) |
|--------------|-----------------------|-----------------|-------------------------------|
| A            | 2024. 4. 24           | New             | /                             |
| B            | 2024. 7. 24           | Revise          | 增加光斑说明                        |

**Quality Assured:** In house made, high damage threshold, Vacuum bonding, 100% Diffraction efficiency test & burn-in test.