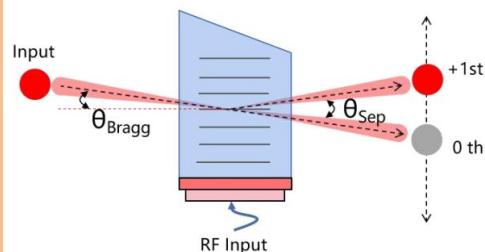


## AQOS Specifications 声光Q开关产品规格书 Q0018-QL041-015-1064



### 1. SPECIFICATIONS (规格)

|                              |                                            |
|------------------------------|--------------------------------------------|
| Interaction material (介质材料)  | Crystal quartz (石英)                        |
| Acoustic mode (声波模式)         | Longitudinal (纵波)                          |
| Operating wavelength (工作波长)  | 1064 nm                                    |
| Polarization (光偏振)           | Linear, perpendicular to base (线偏振, 垂直于基座) |
| Transmission (透过率)           | > 99.6%                                    |
| Active aperture (有效孔径)       | 1.5 mm                                     |
| Center frequency (Fc) (中心频率) | 40.68 MHz                                  |
| Loss modulation (损耗调制)       | >85%                                       |
| RF power (射频功率)              | 25 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) -nm         | 1064 |
| Bragg angle (布拉格角) -mrad     | 3.77 |
| Separation angle (分离角) -mrad | 7.54 |

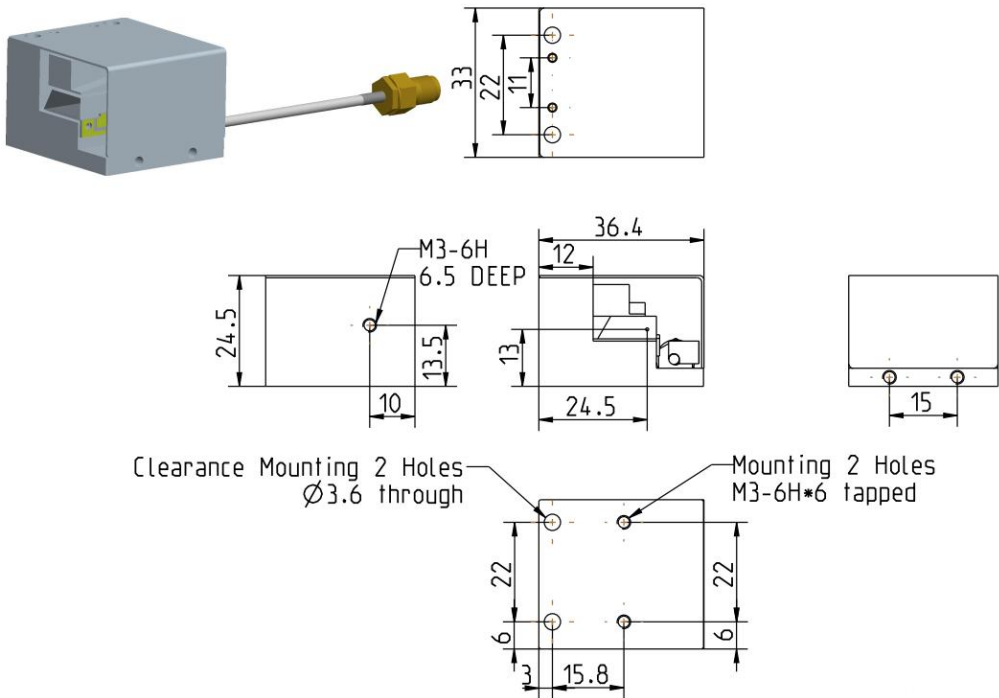
### 3. ESTIMATED PERFORMANCE vs. BEAM DIAMETER (预估性能 vs. 光束直径)

|                          |     |     |
|--------------------------|-----|-----|
| Beam diameter (光束直径) -mm | 1   | 1.5 |
| Rise time (上升沿时间) -ns    | 113 | 170 |
| Loss modulation (损耗调制)   | 85% | 85% |

4. ORDERING CODES (编码规则)

|       | Materials        |   |                       | Acoustic type |           | Fc  |   | Active aperture |      | Wavelength |         |
|-------|------------------|---|-----------------------|---------------|-----------|-----|---|-----------------|------|------------|---------|
| Q0001 | —                | X |                       | X             |           | XXX | — | XXX             | —    | XXXX       |         |
|       | QZ               | Q | Longitudinal<br>Shear | L             | 27.12 MHz | 027 |   | 040             | 4 mm | 1030       | 1030 nm |
|       | TeO <sub>2</sub> | T |                       | S             | 40.68 MHz | 041 |   | 060             | 6 mm | 1064       | 1064 nm |
|       | Ge               | G |                       |               | 80 MHz    | 080 |   | 080             | 8 mm | 9600       | 9600 nm |

5. DIMENSIONS (外形尺寸-mm)



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

RD1007-041-24-25-CZ

7. REVISION (版本)

| Number<br>(版本号) | Revisions date<br>(修订日期) | Revision<br>(修改项目) | Revision description<br>(修订内容说明) |
|-----------------|--------------------------|--------------------|----------------------------------|
| A               | 2024. 8. 28              | New                | /                                |

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