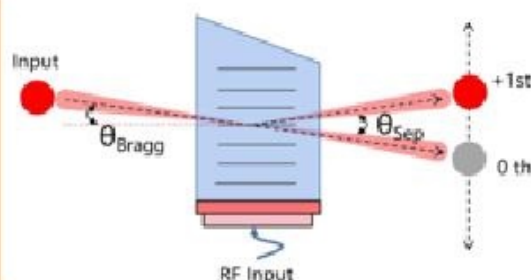


# AOQS Specifications 声光Q开关产品规格书 Q0017-QL080-030-1064



## 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)      | 3.0 mm                                     |
| Center frequency (中心频率)     | 80 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     | 7.4  |
| Separation angle (分离角) -mrad | 14.8 |

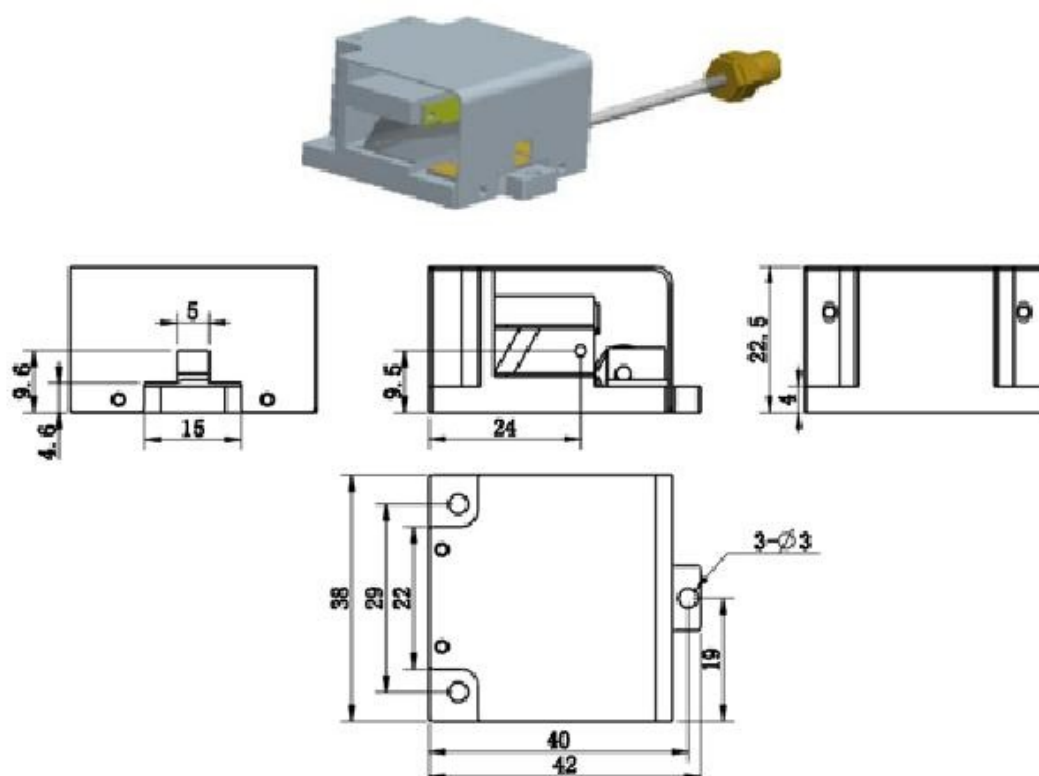
## 3. ESTIMATED PERFORMANCE vs. BEAM DIAMETER (预估性能 vs. 光束直径)

|                          |     |     |     |
|--------------------------|-----|-----|-----|
| Beam diameter (光束直径) -mm | 1   | 1.5 | 3   |
| Rise time (上升沿时间) -ns    | 113 | 170 | 350 |
| Loss modulation (损耗调制)   | 85% | 85% | 85% |

#### 4. ORDERING CODES (编码规则)

|       | Materials        |   | Acoustic type |   | Ec        | Active aperture |     | Wavelength |              |
|-------|------------------|---|---------------|---|-----------|-----------------|-----|------------|--------------|
| Q0001 | —                | X |               | X | XXX       | —               | XXX | —          | XXXX         |
|       | QZ               | Q | Longitudinal  | L | 27.12 MHz | 027             | 040 | 4 mm       | 1030 1030 nm |
|       | TeO <sub>2</sub> | T | Shear         | 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)

RD1002-080-24-25-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.