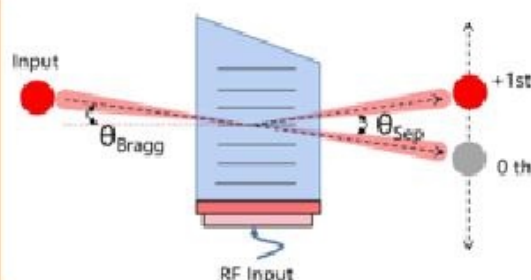


# AOQS Specifications 声光Q开关产品规格书 Q0021-FS041-060-1064



## 1. SPECIFICATIONS (规格)

|                              |                            |
|------------------------------|----------------------------|
| Interaction material (介质材料)  | Fused Silica (熔融石英)        |
| Acoustic mode (声波模式)         | Shear (切变波)                |
| Operating wavelength (工作波长)  | 1064 nm                    |
| Polarization (光偏振)           | Random polarization (随机偏振) |
| Damage threshold (损伤阈值)      | > 1GW/cm <sup>2</sup>      |
| Transmission (透过率)           | > 99.6%                    |
| Active aperture (有效孔径)       | 6 mm                       |
| Center frequency (Fc) (中心频率) | 40.68 MHz                  |
| Loss modulation (损耗调制)       | > 86%                      |
| RF power (射频功率)              | 50 W (max)                 |
| Input impedance (输入阻抗)       | 50Ω Nominal                |
| VSWR (驻波比) @Fc               | < 1.2:1                    |
| RF connector (射频接头)          | BNC-F                      |
| Water flow rate (水流量)        | > 1.4L/minute              |
| Cooling (散热方式)               | Water-cooling (水冷散热)       |
| 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     | 3.6  |
| Separation angle (分离角) -mrad | 7.3  |

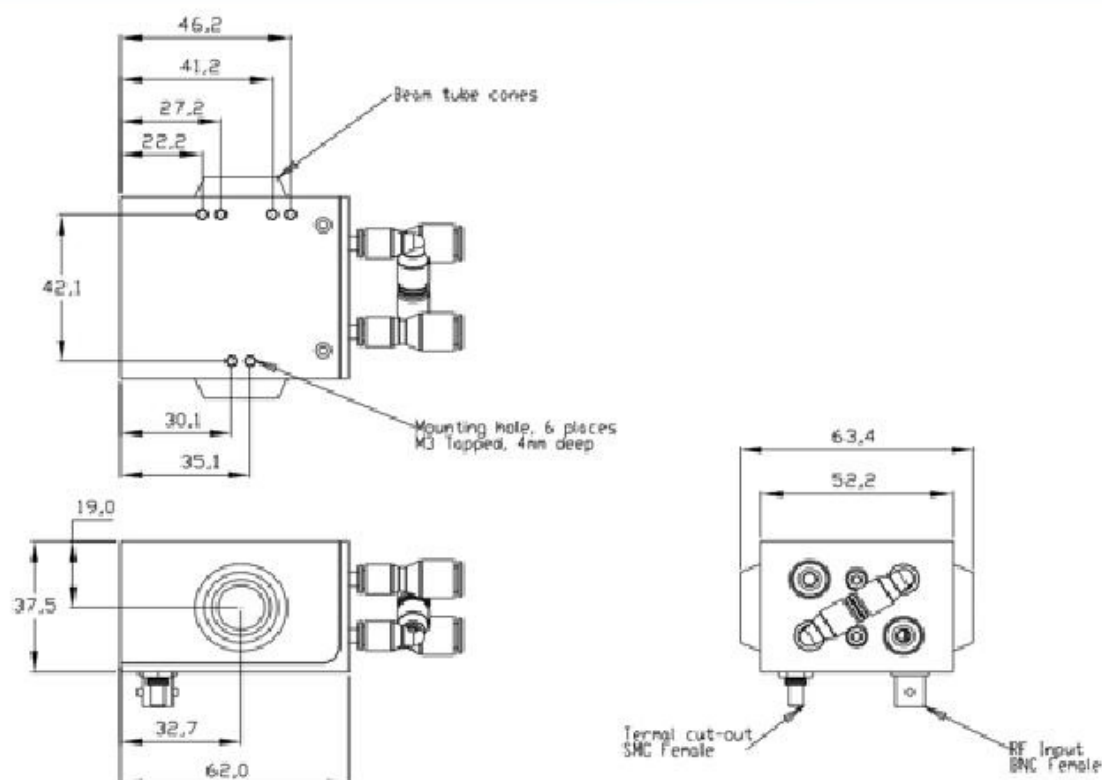
## 3. ESTIMATED PERFORMANCE vs. BEAM DIAMETER (预估性能 vs. 光束直径)

|                          |     |     |     |
|--------------------------|-----|-----|-----|
| Beam diameter (光束直径) -mm | 1   | 3   | 4   |
| Rise time (上升沿时间) -ns    | 109 | 327 | 436 |
| Loss modulation (损耗调制)   | 86% | 86% | 86% |

## 4. ORDERING CODES (编码规则)

|       | Materials        |   | Acoustic type |   | Fc        | Active aperture |     | Wavelength |              |
|-------|------------------|---|---------------|---|-----------|-----------------|-----|------------|--------------|
| Q0001 | —                | X | 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)

RD1018-041-24-050-SZ

## 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               | 2024.8.29                | NEW                | /                                |

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