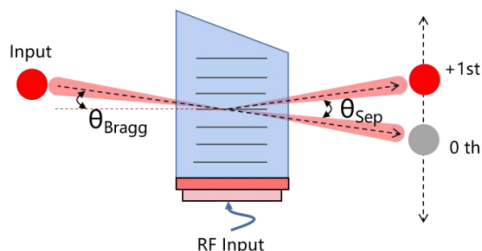


# AOM Specifications

## 声光调制器产品规格书

### STM0017-TL250-003-780-950



### 1. SPECIFICATIONS (规格)

Interaction material (介质材料)	Tellurium dioxide (二氧化碲)
Acoustic mode (声波模式)	Longitudinal (纵波)
Operating wavelength (工作波长)	780-950 nm
Polarization (光偏振)	Linear, vertical to base (线偏振, 垂直基座)
Transmission (透过率)	> 97 %
Active aperture (有效孔径)	2.5 mm×0.32 mm
Center frequency (Fc) (中心频率)	250 MHz
Diffraction efficiency (衍射效率)	> 70 % @ 150 $\mu$ m beam diameter
RF power (射频功率)	1.6 W (max) @ 780 nm 1.9 W (max) @ 850 nm 2.4 W (max) @ 950 nm
Input Impedance (输入阻抗)	50 $\Omega$ Nominal
VSWR (驻波比) @Fc	< 1.3:1
RF connector (射频接头)	SMB
Cooling (散热方式)	Conduction-cooled (传导冷却)
Shell material (外壳材料)	Aluminum alloy 6063 (铝6063)
Storage temperature (存储温度)	-20~70 $^{\circ}$ C

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

Wavelength (光波长) -nm	800
Bragg angle (布拉格角) -mrad	23.8
Separation angle (分离角) -mrad	47.6

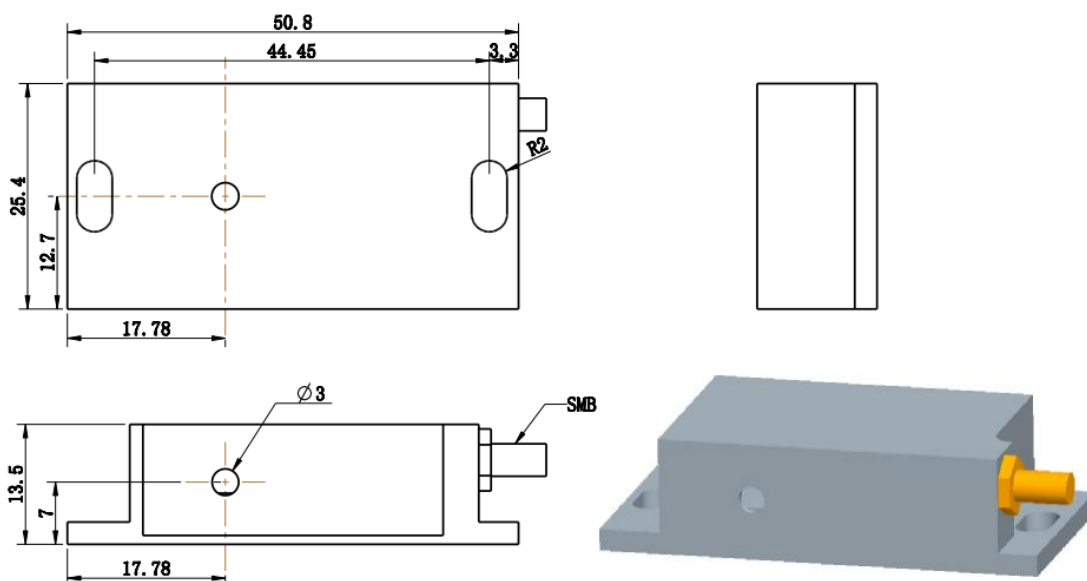
### 3. ESTIMATED PERFORMANCE vs. BEAM DIAMETER (预估性能 vs. 光束直径)

Beam diameter (光束直径) -mm	150 $\mu$ m
Rise time (上升沿时间) -ns	29 ns
Diffraction efficiency (衍射效率) @Fc	70 %

#### 4. ORDERING CODES (编码规则)

	Fc	Active aperture	Wavelength
STM0001—	GL XXX	— XXX	— XXXX
27.12 MHz	027	040 4 mm	9400 9.4 um
40.68 MHz	041	060 6 mm	10600 10.6 um
80 MHz	080	080 8 mm	

#### 5. DIMENSIONS (外形尺寸-mm)



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

RD1019-250-24-003-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	2022.10.19	New	/

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