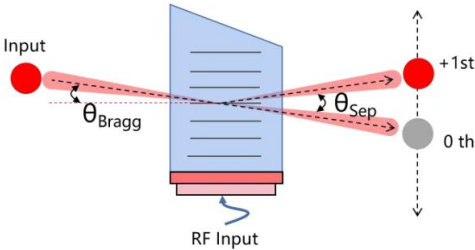


AOM Specifications
声光调制器产品规格书
M0022-GL041-080-9600



1. SPECIFICATIONS (规格)

Interaction material (介质材料)	Germanium (锗)
Acoustic mode (声波模式)	Longitudinal (纵波)
Operating wavelength (工作波长)	9600nm
Polarization (光偏振)	Linear, parallel to base (线偏振, 平行于基座)
Transmission (透过率)	> 95%
Active aperture (有效孔径)	8mm
Center frequency (Fc) (中心频率)	40.68MHz
Diffraction efficiency (衍射效率)	$\geq 85\%$
RF power (射频功率)	80 W (max)
Input Impedance (输入阻抗)	50 Ω Nominal
VSWR (驻波比) @Fc	< 1.12:1
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)
Water cooling channel material (水冷块材料)	Cuprum (铜)

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

Wavelength (光波长) -nm	9600
Bragg angle (布拉格角) -mrad	35.5
Separation angle (分离角) -mrad	71.0

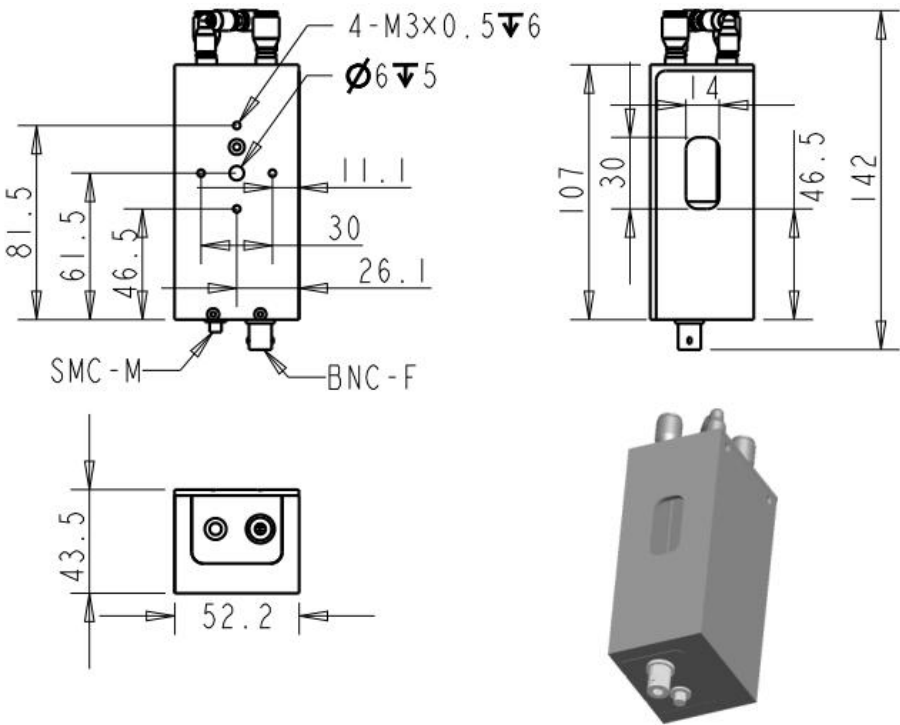
3. ESTIMATED PERFORMANCE vs. BEAM DIAMETER (预估性能 vs. 光束直径)

Beam diameter (光束直径) -mm	1	7	8
Rise time (上升沿时间) -ns	118	826	944
Diffraction efficiency (衍射效率) @Fc	85%	85%	85%

4. ORDERING CODES (编码规则)

	Materials			Acoustic type		Fc		Active aperture		Wavelength	
M0001	—	X		X		XXX	—	XXX	—	XXXX	
	QZ	Q	Longitudinal	L	27.12 MHz	027		040	4 mm	1030	1030 nm
	TeO ₂	T		S	40.68 MHz	041		060	6 mm	1064	1064 nm
	Ge	G			80 MHz	080		080	8 mm		

5. DIMENSIONS (外形尺寸-mm)



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

RD1042-041-24-120-WA

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. 6. 20	New	/
B	2024. 7. 18	Revise	水冷快材质、外形尺寸

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