

# Photonics USA



**AO Q-Switch**  
**Model: QSG27-3**  
**P/N: CETC-QSG27-3**  
**Rev: A**

Acousto-optic Q-Switch, 27MHz  
 Water Cooling, Overheating Protection

## Description

QSG27-3 Acousto-Optic Q-Switch module comprises of two orthogonal devices. The water-cooled Acousto-optic Q-Switch is designed for the high power laser of 100W~300W, two devices of which synchronously work in the laser cavity.

It is widely applied in various of laser processing equipment, such as high-power laser marking machine, scribing machine, engraving machine, cutting machine and fine process machine.

## Characteristics:

- ❖ High switch-off power
- ❖ High damage threshold
- ❖ Quick modulation rate
- ❖ Convenient use and stable and reliable work
- ❖ First pulse suppression function

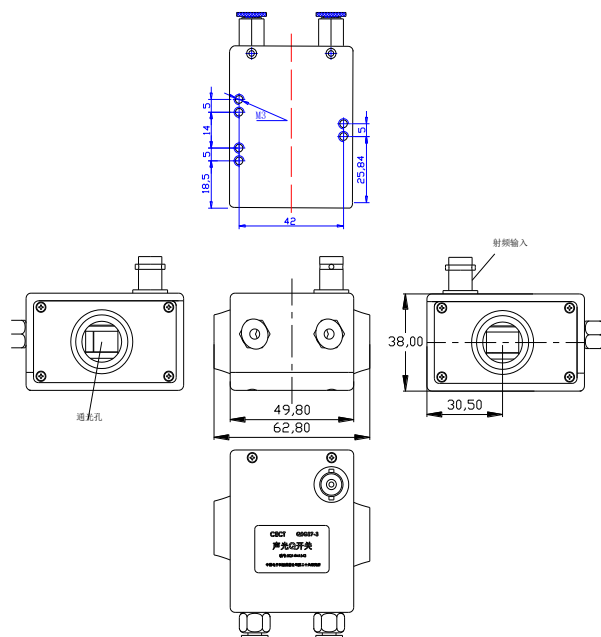
## Applications:

- ❖ High power laser marking machine
- ❖ Scribing machine
- ❖ Engraving machine
- ❖ Cutting machine
- ❖ Fine process machine

## General Specification

Interaction Material	Silica
Wavelength	1064nm
Operating Frequency	27MHz
Diffraction Efficiency	≥ 80%
Reflectivity	< 0.2% (single side)
Transmittance	> 96.6%
Damage Threshold	> 500MW/cm <sup>2</sup>
VSWR	≤ 1.2
Light Aperture	5mm
Protection	Automatic overheating protection
RF Connection	BNC-50KY
Pipe Size for Cooling Water (OD)	φ6

## Outline: Dimensions (mm)



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## About CETC 26<sup>th</sup>



The 26<sup>th</sup> Institute of China Electronic Technology Group Corporation (CETC 26<sup>th</sup>) is specialized in R&D of piezoelectric and Acousto-optic technologies. Its R&D center of AO technology was started in 1972, with strong design capability and a complete production line, has developed dozens of varieties of AO products. Custom-made service and quality solutions can also be provided to meet customers' special interest.

CETC 26<sup>th</sup> has passed ISO9001-2000, GB/T24001-2004 and GB/T28001-2001 certification. Quality is strictly controlled at each production phase, covering material selection, processing, assembling and testing.

AO devices of CETC 26<sup>th</sup> are widely used for various laser applications.

Main products include:

- **Free space coupled AO device & Driver:** Q-Switch, modulator, frequency shifter, deflector, adjustable filter and mode locker, etc.
- **Pigtail coupled AO device & Driver:** fibered AO Q-Switch, fibered modulator, fibered frequency shifter, etc.