

Acousto-Optics



Landwehr Electronic GmbH is able to offer a wide product range of acousto-optical devices for laser applications. Precision engineering and professional manufacturing guarantees a reliable quality.

Using the latest computer modeling software for acousto-optic and radio frequency design, engineers at Landwehr Electronic GmbH and physicists at our partner Gooch & Housego PLC are able to make an optimised acousto-optic device including the matching network and the obligatory radio frequency driver. These requirements may be as diverse as:

- ❖ Acousto-Optic Modulator
- ❖ Acousto-Optic Tunable Filter
- ❖ Acousto-Optic Q-Switch
- ❖ Acousto-Optic Deflector
- ❖ Acousto-Optic Frequency Shifter
- ❖ Acousto-Optic Mode Locker
- ❖ Acousto-Optic Cavity Dumper
- ❖ Acousto-Optic Fibre Coupled Devices

To overcome the challenge of manufacturing such a large variety of acousto-optic devices the very latest interaction materials must be available. Acousto Optics are delivered for operation in the UV, visible, near and mid-IR spectral ranges.

Materials

- | | |
|--|--|
| <input type="checkbox"/> Crystal Quartz | <input type="checkbox"/> Fused Silica/Quartz |
| <input type="checkbox"/> Lead Molybdate $PbMoO_4$ | <input type="checkbox"/> Tellurium Dioxide TeO_2 |
| <input type="checkbox"/> Flint Glass SF6, SF10, SF57 | <input type="checkbox"/> Chalcogenide Glass |
| <input type="checkbox"/> Lithium Niobate $LiNbO_3$ | <input type="checkbox"/> Gallium Phosphide |
| <input type="checkbox"/> Germanium | <input type="checkbox"/> Amtir-1 |

Individual Application

Standard products are available but frequently it is necessary to design acousto-optic devices and electronic drivers to suit individual requirements. Landwehr Electronic GmbH and our partner Gooch and Housego PLC can apply their engineering expertise to overcome most problems and so make the development of difficult solid state components possible. Whether in test samples or in high volume production emphasis is placed on performance and quality. Please refer to our technical data sheets for detailed specifications.

Please ask for laser system components where the following requirements are critical

- modulator with ultra fast optical switching speed for use in pre-press applications
- modulator for operating wavelengths • 488 nm • 532 nm • 633 nm • 1064 nm
- frequency shifter for use in applications such as interferometry, laser doppler velocimetry and laser vibrometry
- acousto-optic tunable filter for use with laser display systems
- acousto-optic tunable filter for use in industrial applications such as in the chemical or pharmaceutical industry
- q-switch applications for use with e.g. very high laser power and short pulse widths or engineered to achieve the highest levels of pulse to pulse stability