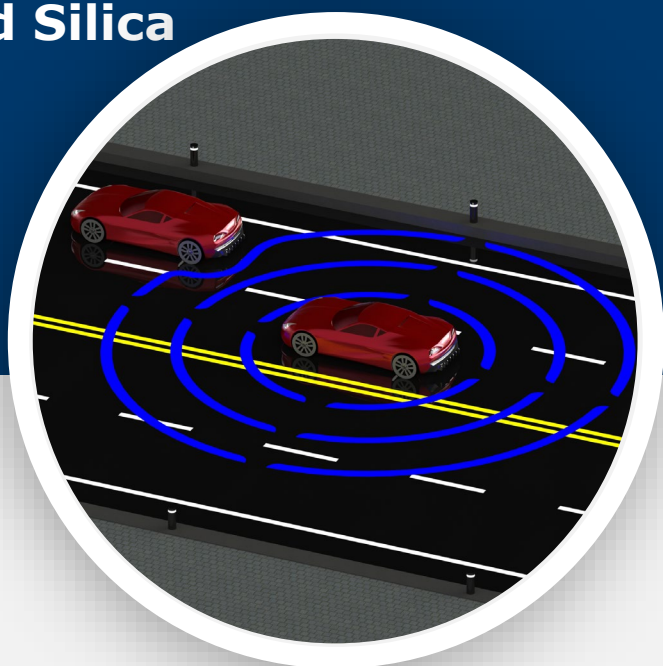


# Beam Steering with Fused Silica Transmission Gratings



## APPLICATIONS

- 3D Sensing
- Lidar
- Free-space WDM

## IMAGINE THESE CHARACTERISTICS!

### ➤ **Fit for TOF, FMCW and any wavelengths you shine at it**

Fused silica transmission gratings are wavelength continuous and can therefore be used in conjunction with dynamic resolution wavelength schemes. For the same reason, the gratings are suitable for both TOF (time of flight) and FMCW (frequency modulated continuous wavelength) techniques. Gratings can be made for any wavelength range, including 905 nm, 1310 nm and 1550 nm wavelength ranges - samples for prototyping are available.

### ➤ **Non-Mechanical Steering**

The grating passively steers each wavelength into a well-defined direction. There are neither macro nor micro-electro-mechanical (MEMS) movements, thus ensuring long-term robustness and stability. Directionality is fundamental and unchanging, significantly easing calibration requirements.

### ➤ **Flat as a 1 mm pancake**

Fused silica transmission gratings are flat and thin optical components with high dispersion, enabling compact modules.

### ➤ **Extend your range**

Fused silica transmission gratings boast low loss - typically  $<0.3$  dB, furthermore with broad spectral response and great AOI tolerance.

### ➤ **Mass Production Ready**

Based on scalable, semiconductor manufacturing processes, fused silica transmission grating production can be scaled to high volume production levels, with unit costs decreasing simultaneously.



Steer off to [ibsen.com/beamsteering](https://www.ibsen.com/beamsteering) to learn more

### Headquarters

Ryttermarken 17  
3520 Farum, Denmark

### Contact Ibsen

Telephone: +45 4434 7000  
Email: [inquiry@ibsen.com](mailto:inquiry@ibsen.com)