



Custom Time Delay & Integration (TDI) - CCD Image Sensors

General Features & Design Examples

- Various pixel structures: 3-poly Si or virtual phase
- Various device architectures, formats and pixel dimensions
- Monochrome and multispectral
- Variable no. of switchable TDI-stages with the height of 8, 16, 32, 64, 128 or 12, 24, 48, 92, 192 lines
- Antiblooming option
- Quantum Efficiency: QE_{max} up to 40% (for 3-poly Si pixel) or up to 65% (for the virtual phase pixel)
- Spectral Sensitivity Range: 300nm – 1000nm (for 3-poly Si pixel) or 200nm – 1000nm (for the virtual phase pixel)
- Single devices or buttable for large focal plane arrays assembling

Main Applications:

Astronomy

Astrometry

Remote sensing from space

Mineral exploration,
Agricultural and environmental monitoring,
Earth surface displacement monitoring,
Ocean surface and atmosphere monitoring,
Operational navigation tracking,
Monitoring of emergencies and oil spills

The TDI sensors are currently part of confidential custom projects (no standard devices available yet). However the various sensor design elements are mostly generally available. Feasibility statements and quotations can be based on the concrete sensor-specification of the user.