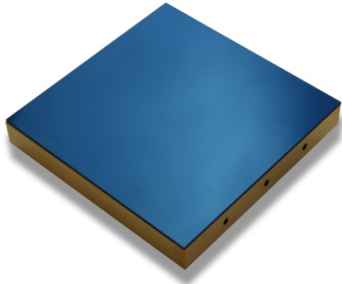


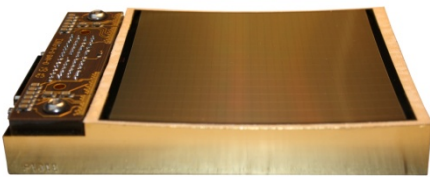
## New Products 2012

### 4-side closely buttable package for Low Noise 10k x 10k – CCD (111MPixel)



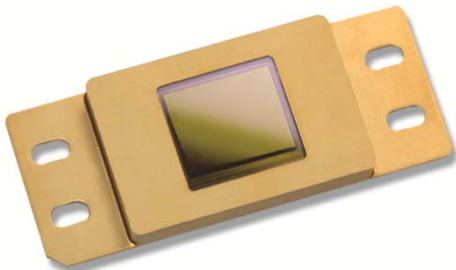
- for the assembly of larger image sensor mosaics
- 5mm separation between sensor elements possible

### Spherical CCD-sensors



- Custom concave or convex, various radii of curvature
- Also cylindrical (1-dimensional spherical)
- e.g. 4k x 4k (16MPixel) spherical CCD (see figure)

### InGaAs-Matrix Sensor FPA640x512-TE2



- Now with 2-stage thermoelectric cooler
- About 20 °C lower chip-temperature during operation: reduction to -40..-50 grd C
- Reduced pixel noise distribution and improved detectivity of  $7.5 * 10^{12}$  Jones ( =  $\text{cm} \cdot \sqrt{\text{Hz}} / \text{W}$  )