



NEMO-01LVG

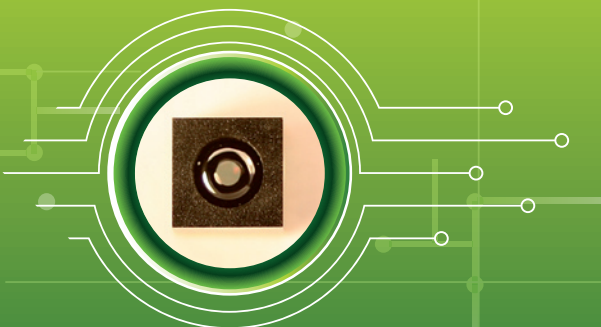
The **NEMO-01LVG** lens is a single element, reflow-compatible lens designed to work with 2.25µm pixel VGA image sensors. This is a small form factor and a cost-effective optical solution.

An IR filter and apertures are incorporated into the lens structure helping to reduce the number of components within a camera module and suitable to have an ultra-slim device.

NEMO-01LVG provides a very low distortion (less than <1%) with only a single element

| NEMO-01LVG Optical Design Performances* | |
|---|---------------|
| F# | 2.8 |
| Pixel size | 2.25 µm |
| Image Height @ DFOV | 900 µm |
| Image Circle Radius | 945 µm |
| CRA (max) | 28° |
| FOV (Diagonal) | 60° |
| Relative illumination | >55% |
| TV Distortion | <1% |
| Optical Distortion | <1.5% |
| MTF (min) @ N/4 | |
| at 0% field | 67% |
| at 60% field | 50% |
| at 80% field | 33% |
| at 100% field | 18% |
| MTF (min) @ N/2 | |
| at 0% field | 33% |
| at 60% field | 19% |
| at 80% field | 13% |
| at 100% field | 11% |
| Storage Temperature | -40°C to 85°C |
| Operating Temperature | -25°C to 55°C |

* Nominal Design values

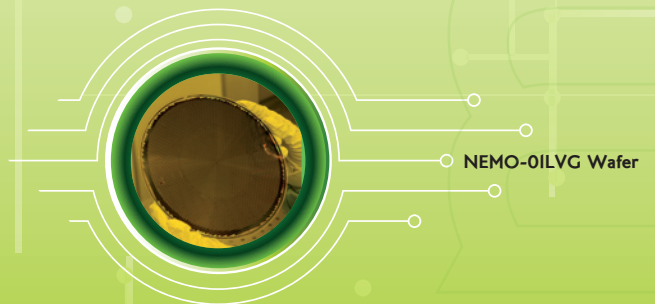


| DIMENSIONS | |
|----------------------|---------------|
| Die Size | 2.30mm*2.30mm |
| Total Track length** | 2.35mm |

**Distance from sensor surface to upper most lens

| Reliability Test | Test Condition | Status |
|--------------------------|--|-----------|
| Pre-conditioning | 3X reflow, Pick temperature : 260°C | 100% PASS |
| High temperature storage | 85°C; 168 hours | |
| Thermal shock | -20°C to 85°C, 100 cycles 30min dwell | |
| Damp Heat Cyclic | 25°C to 55°C; Constant 90% RH to 100% RH; 18 cycles | |
| Solar Radiation Test | 55°C/25°C; 8hrs radiation/16hrs dark; 1120W/m2; 10cycles | |

Reliability Tests: Conditions and Results



100% MTF Tested

Applications

- Mobile phones
- Computers and Laptops
- PDAs
- Security electronics

Benefits

- Cost reduction
- Size reduction
- Reflowable
- Scalability
- Assembly Compatibility