



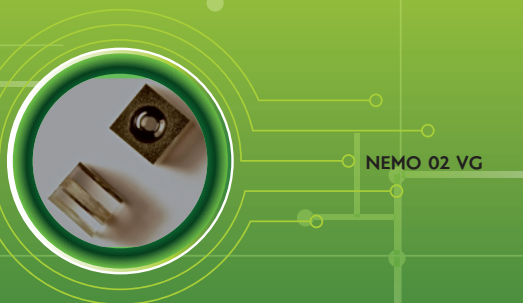
NEMO-02 VG

The **NEMO-02VG** is a double elements, reflow-compatible lens designed to work with 2.2-2.25µm 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 reduce the number of components within a camera module and suitable to have an ultra-slim handset. The additional optical element provides enhanced optical performances.

NEMO-02VG 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	>66%
TV Distortion	<1%
Optical Distortion	<0,4%
MTF (min) @ N/4	
at 0% field	75%
at 60% field	70%
at 80% field	62%
MTF (min) @ N/2	
at 0% field	42%
at 60% field	38%
at 80% field	30%
Storage Temperature	-40°C to 85°C
Operating Temperature	-25°C to 55°C

* Nominal Design values

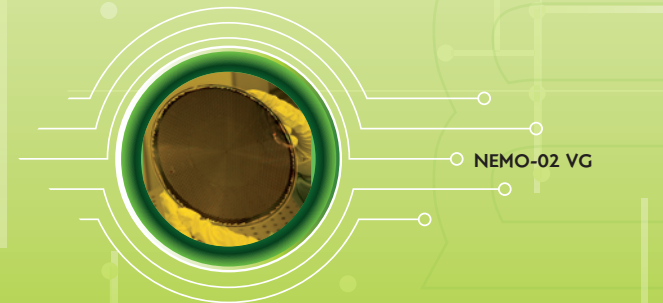


DIMENSIONS	
Die Size	2,30mm*2,30mm
Total Track length**	2,35mm

** 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