

NEMO-1WVG

The **NEMO-1WVG** is a single element, reflow-compatible lens designed to work with 2.25- μ m pixel VGA image sensors. It is a small form factor and a cost-effective optical solution. An IR filter and apertures is incorporated into the lens structure helping to reduce the number of components within a camera module and suitable to have an ultra-slim device.

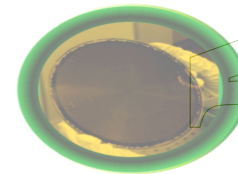
NEMO-1WVG provides a wider field keeping a low level of distortion.

DIMENSIONS	
Die Size	2.30mm*2.30mm
Total Track length**	2.25 mm

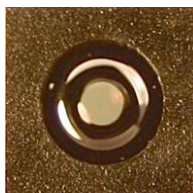
** Distance from sensor surface to upper most lens

Optical Design Performance*	
F#	3.0
Pixel Size	2.25 μ m
Image Height @ DFOV	0.925 mm
Image Circle Radius	1.000 mm
Object Distance	600 mm
CRA (max)	28.0°
FOV (Diagonal)	65.2°
Relative Illumination (Image Height)	53%
TV Distortion	-
Optical Distortion	1.2%
MTF (min) @ N/4	
At 0% Field	68%
At 60% Field	59 48%
At 80% Field	43 21%
MTF (MIN) @ n/2	
At 0% Field	55%
At 60% Field	33 21%
At 80% Field	15 8%
Storage Temperature	-40°C to 85°C
Operating Temperature	-25°C to 55°C

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	
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/m ² ; 10cycles	



Nominal Design values



Applications

- Mobile Phones
- Computers
- PDAs
- Security Electronics

Benefits

- Cost Reduction
- Size Reduction
- Reflowable
- Scalability
- Assembly Compatibility