Gen 3 Product Brief
LensVector AutoFocus (LVAF) and Driver IC
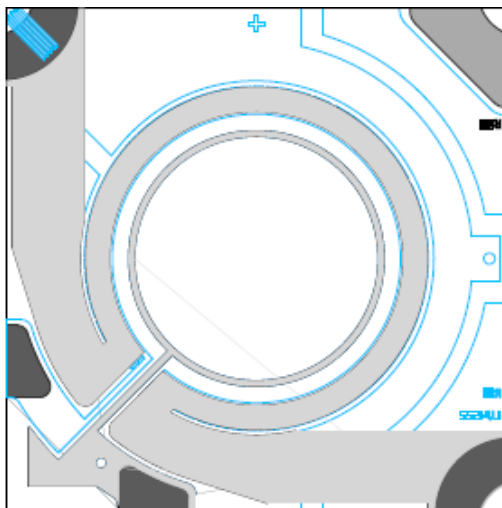
Advanced Product Brief

LVAF Product Features

- Solid State – No Moving Parts
- High Optical Quality
- Silent Operation
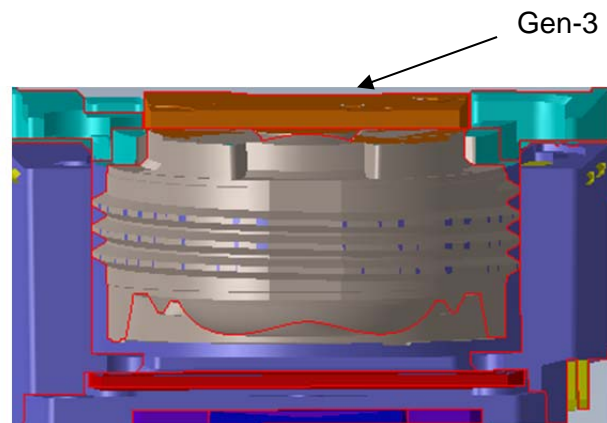- Low Power
- Small Size
- Light Weight

LVAF Product Applications

- Mobile Phone Camera (Primary and Secondary)
- Webcam
- Barcode Reader
- Pocket HD Video Camera
- Video Conferencing

Gen 3 Concept Drawing

GEN 3 LVAF

Gen-3

GEN 3 LVAF INTERGRATION

Advanced Product Brief

LVAF Performance Parameters

Feature	Parameter	Typical Specification
Physical Dimensions	Width (A)	4.52 ± 0.03mm
	Height (B)	4.52 ± 0.03mm
	Thickness	0.48 ± 0.06mm
	No of Contacts	5
Optical Properties	Aperture Ring	1.85 mm to 2.40 mm[1]
	Available Optical Power Range for AF	>10 Diopters[2]
	Effective Focus Range	Inf. To 10 cm
Camera Module Resolution Spec	1/4", 1/5" and smaller	HD, 2, 3, 5 and 8 Megapixels
Temp Ranges	Full Spec Temperature Range	0 to +65°C
	Operating Temperature Range	-15 to +75°C
	Storage Temperature Range	-40 to +85°C
AF Convergence Time	Time to Focus	< 0.5 Sec Far Field and <1.2 Sec Near Field[3]
Reliability	Temperature Spec	85C/85% RH
	Drop Test	Pass
	EMI	Pass

Note 1 : Clear Aperture can be picked based on the end application and customer requirements.
Note 2 : Optical power range depends on the clear aperture dimension.
Note 3 : AFC time based on 2 diopter increments, hill-climb search and parabolic curve fitting to determine best OP (At 45C and 15fps).

Driver IC Specification

Product Features

- I2C serial interface with OTP NV configuration
- Low 5V drive voltage enables Image sensor integration
- Integrated charge pump and switching output
- Integrated temperature sensor
- Lens heater with integrated charge pump and temperature control
- +2.8 to +3.3V input for Li-Ion applications

Key Parameters

Operating Conditions	
Supply Voltage to Driver IC	2.8 – 3.3V
Driver Output Voltage	4 ~ 12V
Heater Voltage	2.8V
Drive Frequency Range	400 Hz – 100 kHz
Power Consumption	80 mW
Package Spec	
Package Size (CSP)	< 0.8mm X 2.0mm X 0.35mm
Pin Count	10

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