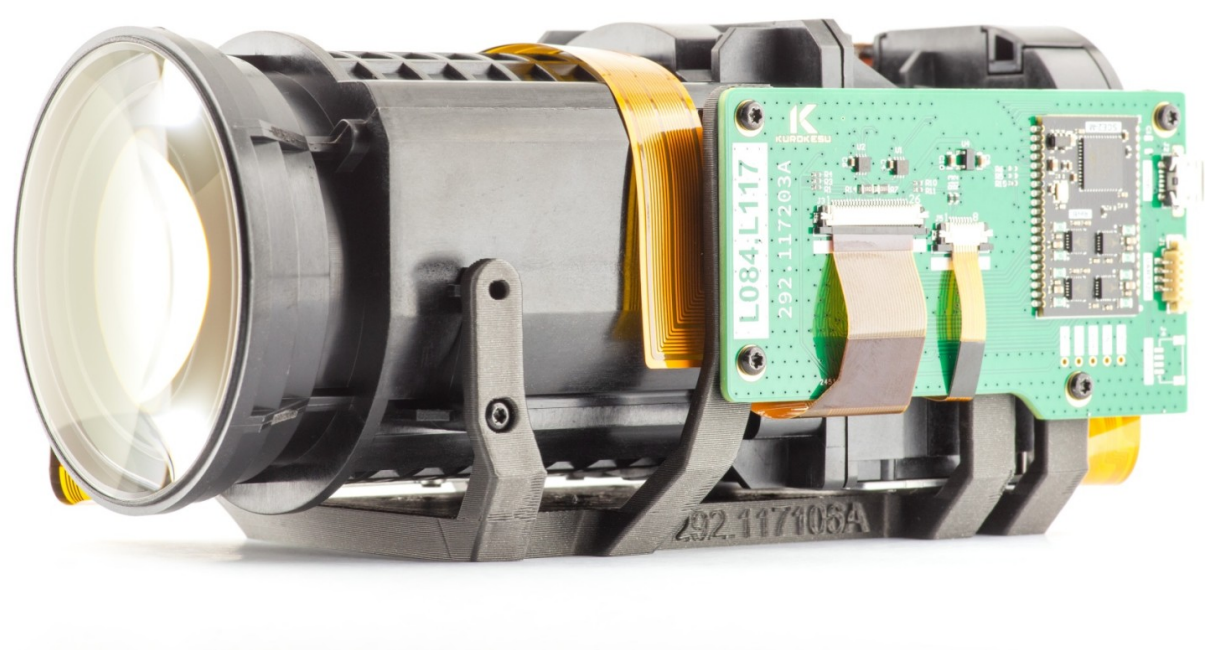


# L117-DEVKIT

## Brief

L117 is 6.5-212mm focal length (32x) motorized zoom lens is designed for 1/1.8" image sensors, has zoom/focus/iris functions, designed for 8M sensors.



## Specifications

### Optics

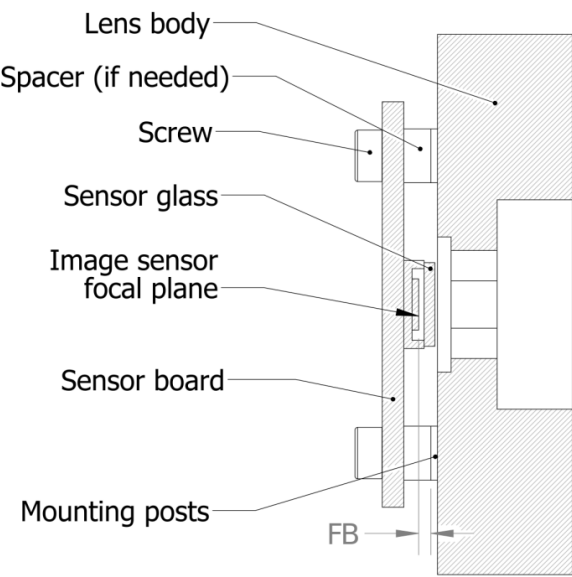
Image sensor	1/1.8" Effective image area > 9.3mm
Focal distance	6.5 ~ 212mm / ±5%
Aperture	f/1.4 ~ f/4.9
Focus range	<ul style="list-style-type: none"><li>• WIDE: 0.5m - infinity</li><li>• TELE: 2.0m - infinity</li></ul>
Field of view (D=8.26mm)	<ul style="list-style-type: none"><li>• WIDE: 70.7°</li><li>• TELE: 2.3°</li></ul>

Distortion	<ul style="list-style-type: none"><li>• WIDE: -2.6%</li><li>• TELE: 1.0%</li></ul>
Recommended image sensor	IMX334
Bare lens weight	437g

## Mechanics

Flange back ( <b>FB</b> , see diagram below)	+0.93 (in glass t=0.3 IRCF)
Lens zoom structure	The stepper motor is directly connected to the screw
Lens focusing structure	The stepper motor is directly connected to the screw
Lens size	<ul style="list-style-type: none"><li>• Length: 146mm</li><li>• Width: 73mm</li><li>• Height: 67mm</li><li>• Front end diameter: 43mm</li></ul>

In order to accommodate different image sensors, the focal distance is set back by flange back (FB) distance. The actual distance for a specific sensor has to be calculated and spacers used. If the image plane is not set correctly, focus irregularities in the projected picture are expected.



## Motor specifications

Screw pitch	0.4mm
Spiral rotation direction	Right
Rated voltage	5.0 VDC

Coil resistance	<ul style="list-style-type: none"> <li>• Zoom1: <math>20\Omega \pm 10\%</math> / phase (T=25°C)</li> <li>• Zoom2: <math>20\Omega \pm 10\%</math> / phase (T=25°C)</li> <li>• Focus: <math>55\Omega \pm 10\%</math> / phase (T=25°C)</li> <li>• Iris: <math>35\Omega \pm 10\%</math> / phase (T=25°C)</li> </ul>
Phase count	2
Step angle	<ul style="list-style-type: none"> <li>• Zoom1, Zoom2, Focus: 18° / step</li> <li>• Iris: 0.6° / step</li> </ul>
Operating temperature range	-30°C ~ +70°C

## Position alignment sensor PI

Model number	<ul style="list-style-type: none"> <li>• Zoom1, Zoom2, Focus: RPI-222 ROHM</li> <li>• Iris: GP1S196HCZ0F SHARP</li> </ul>
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## Iris

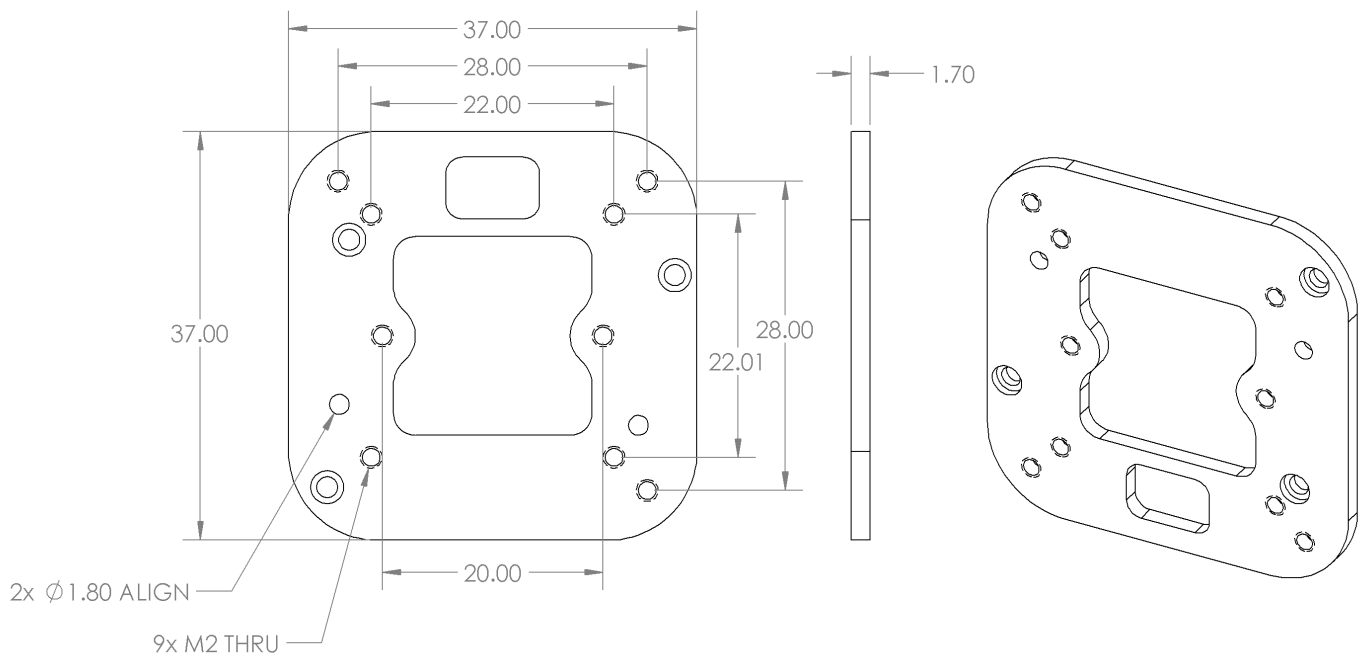
Blade count	10
Drive mode	Stepper motor

## IR switch

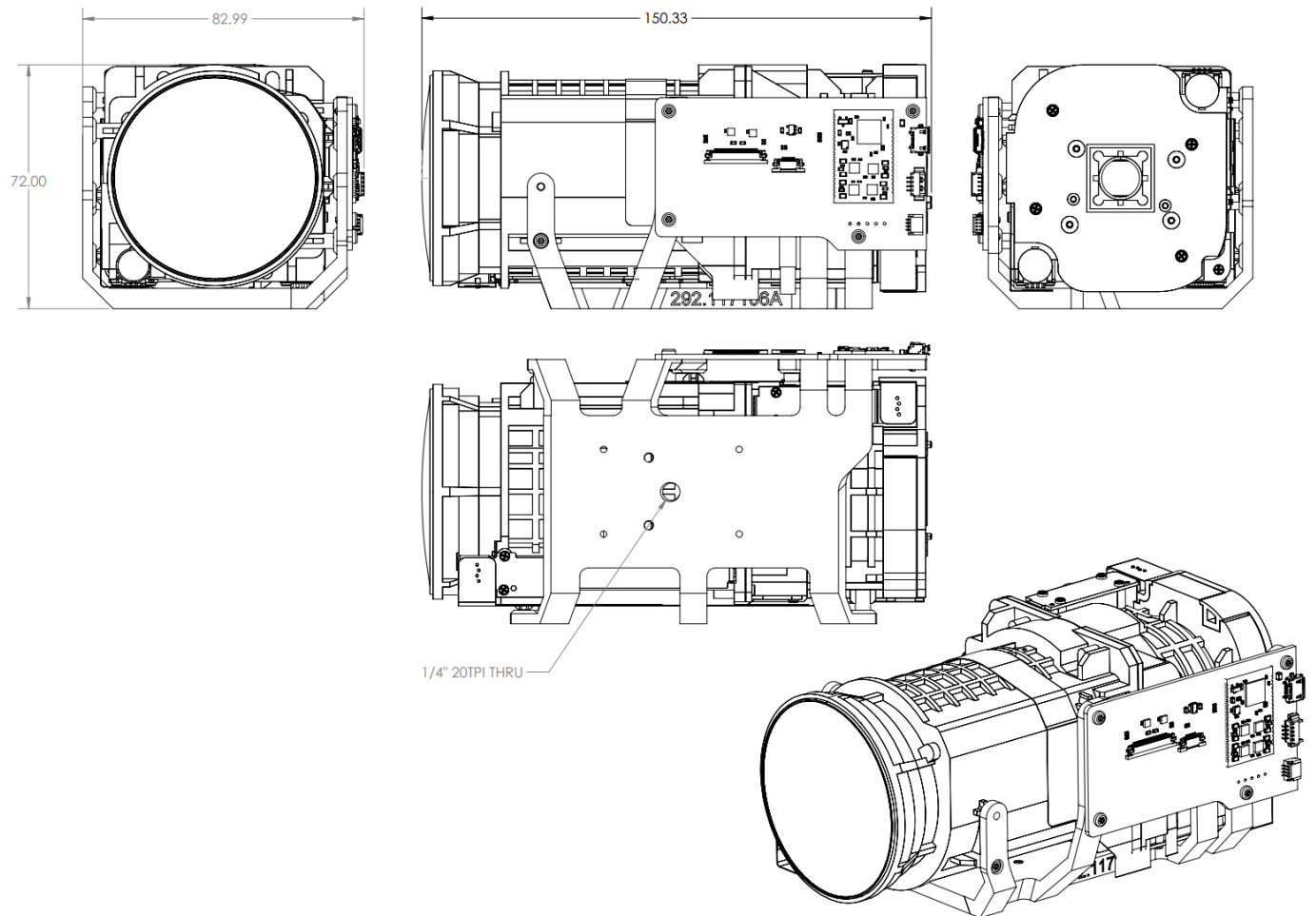
Coil resistance	$22.5 \pm 10\%$ (T=20°C)
Operation voltage	4.5 ~ 5.0V
Current consumption	144 ~ 200mA
Filter thickness	0.3mm
Filter count	2
Switching time	200 ~ 500ms
Filters	<ul style="list-style-type: none"> <li>• Open air</li> <li>• 380 ~ 650nm (T<sub>AVG</sub> &gt;90%)</li> <li>• BP780 (400~750nm T<sub>AVG</sub> &gt;1%, 780~1100nm T<sub>AVG</sub> &gt;90%)</li> </ul>

## Camera adapter plates

292.84104B adapter plate was designed for IMX290 and IMX477 based cameras. L084 and L117 lenses can be mated with board level C1\_PRO, C2, and IMX477\_LEGACY camera boards.



## Dimensions



Revision #12

Created 16 August 2022 06:35:54 by Saulius

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