

## LWIR A-Thermal – Commercial off the shelf lens

# RP-042A

LWIR 4.2 mm Ultra Wide FOV  
A-Thermal Lens



### Features:

- Widest FOV available for VGA detectors
- Suitable for applications where single camera should cover large area
- A-Thermal design with excellent performance over the entire FOV

| Optical                                 |   |
|---|---|
| Focal Length / F#                       | 4.2 mm / F1.1   |
| Detector (FPA) type / size              | 640 x 480 x 17 $\mu$  |
| FOV (degrees)                           | 150°(H) x 100° (V) for detector size of 10.88 x 8.16 mm (640 x 480 x 17 $\mu$ ) |
| Optical Coating - All internal surfaces | High efficiency AR coating / Average transmission: 92%                          |
| Optical Coating - Front surface         | Hi durability (HD) AR coating / DLC coating is optional on request              |
| Optical Total lens track                | 42 mm   |
| Optical Back Focal Length               | 17 mm   |
| Mechanical                              |   |
| Mechanical Back Focal Length            | 9 mm  |
| Focus range                             | 0.5 - Infinity  |
| Total Weight                            | 60gr  |
| Ext. Dimensions $\phi$ x length (mm)    | Front Diameter: 32 mm; Length: 42 mm  |
| Electrical                              |   |
| Power Input                             | 12VDC, 1.0A   |
| Communication Protocol                  | RS-422/232 Full Duplex  |
| Environmental                           |   |
| Operating Temperature                   | -25°C to +50°C A-Thermal lens over 80°C span                                    |
| Storage Temperature                     | -40°C to +70°C  |
| Shock and Vibrations                    | Per applicable standard   |
| Front lens sealing                      | IP67  |

\*IFOV is indicated in mrad

\*\*All values are nominal: to within  $\pm 5\%$