

LWIR Dual/Triple FOV Lens

**OAK**

LWIR 45/135 mm ruggedized Dual FOV  
Thermal system



## Technical Specification

OAK is a long wave uncooled thermal imager offering effective surveillance solutions delivered in a compact package and it is equipped with a high resolution, VOx microbolometer, 640x480 pixels, 17  $\mu\text{m}$  pitch focal plane array.

Operating in the 8-14 $\mu\text{m}$  spectral region OAK provides superior thermal images through smoke, aerosols, and other atmospheric obscurants.

The rugged enclosure is backfilled with dry nitrogen and environmentally sealed, eliminating the need for additional enclosures.

The RS-232/422 remote control capability permits ease of integration into any client-based security system.

RP Optical Lab provides leading-edge IR equipment to the security and surveillance sector. RP's proprietary optical designs, state-of-the-art laboratories, ensure maximum performance and dependability.

## SYSTEM MAIN FEATURES:

- Motorized focus/zoom
- Auto & Manual focus
- Internal shutter or Optical NUC
- Remote control Capability
- Digital output – Camera link
- Dry Nitrogen Backfilled
- Ruggedized construction



## SYSTEM SPECIFICATIONS

PARAMETER	VALUE	NOTES	
<b>SYSTEM</b>			
<b>Video Format</b>	NTSC or PAL		
<b>Communication Protocol</b>	RS-422 Full Duplex	Baud rate 19,200 (other rates available)	
<b>Power Requirements</b>	12VDC, 1.0A	Average nominal power	
<b>ENVIRONMENTAL</b>			
Operating / Storage Temp	-30°C to +50°C / -40°C to +70°C		
Shock and Vibrations	Per MIL-STD-810E		
Sealing	As per IP65	IP66/IP67 available on request	
<b>Controls</b>	Fully Remote controlled		
<b>Electronic Zoom</b>	X2 / X4		
<b>Focus control</b>	Manual / Automatic		
<b>Total Weight</b>	2.6 Kg	Nominal	
<b>External Dimensions</b>	Max Diameter: 96 mm; Length: 123 mm (Please refer to MICD for details)		
<b>Mount / Mechanical Interface</b>	Please refer to Mechanical ICD	Customized interfacing, available on request	
<b>SENSOR</b>			
<b>Detector FPA</b>	640 x 480 pixels, 17 µm pitch	384 x 288 pixels, 25 µm pitch is available on request	
<b>Sensitivity</b>	< 70mK	Please consult for better sensitivity	
<b>OPTICAL</b>		<b>ORDERING INFORMATION</b>	
<b>Focal Length, F#</b>	45 /135 mm, F/ 1.1 & F/1.55 respectively	<b>OAK-X-Y</b>	
<b>Working Spectral Range</b>	8 -14 µ	<b>"X" - Video Output</b>	
<b>FOV (Degree)</b>	For 640 x 480, 17µm pitch	Wide: 13.8°(H) x 10.4° (V) Narrow:4.6°(H) x 3.4° (V)	P PAL N NTSC
	For 384x 288, 25 µm pitch	Wide: 12.2°(H) x 9.2° (V) Narrow:4.1°(H) x 3.1° (V)	<b>"Y" – Camera resolution</b>
<b>Optical NUC</b>	Available and supported by system SW as well as remote control.	<b>640</b>	<b>640x480, 17 µm sensor</b>
<b>Focus / Zoom mechanism</b>	Motorized, remotely controlled	<b>384</b>	<b>384x288, 25 µm sensor</b>
<b>Focus Range</b>	10 m – infinity		

