

TECHNICAL SUMMARY

320 x 240 RESOLUTION

Specifications		Description
Microbolometer	Uncooled Vanadium Oxide	
Pixel Pitch	12 Micron	
Spectral Response	7.8 - 14 Micron	
Sensor Resolution (Array Format)	320 (h) x 240 (v); 76,800 pixels	
Frame Rate	<9Hz, 30Hz, 60 Hz	
Imaging Range ¹	-40°C to 550°C	
Sensor Sensitivity	25 mK	
Non-Uniformity Correction (NUC)	Automatic NUC (with shutter)	
Video Output Interfaces	MIPI CSI-2	
Supply Voltage	3.3VDC up to 50mA steady state, 100mA during shutter	
Power	300mW (max)	
Control Interface	I2C	
Output Frame Format Options		
Supported OS	Linux / Windows SDK	
Partially Processed	16-bit corrected or pre AGC	
Colorized Display	ARGB888, RGB565, AYUV, or YUY2	
B/W Display	8-bit Greyscale	
Temperature	32-bit floating point or 16-bit fixed point thermography	
Optics & Mechanical Options		
Focal Length	4.0mm	9.1mm
F-number (focal length/aperture)	f/1.0	f/1.0
Spatial Resolution (IFOV, center)	3.0	1.32
HFOV	56°	24°
VFOV	42°	18°
Detection Range ²	333m	758m
Recognition Range ²	83m	190m
Identification Range ²	48m	108m
Distance to Spot Ratio	56:1	126:1
Ingress Protection	IP67 Sealable	IP67 Sealable
Core Dimensions (L x W x H)	20 x 20 x 16mm	20 x 20 x 21mm
Core Weight	11g	13g
Focus	Fixed	Fixed
Lens Material	Chalcogenide	Chalcogenide
Thermography		
Temperature Calibration	Calibrated Output in °C, °F, K	
Temperature Accuracy ^{1,3,4}	The greater of ±3°C or 3% between 0°C to 550°C scene temperatures	
Environmental		
Operating Temperature Range	-10°C to 60°C	
Storage Temperature Range	-40°C to 80°C	
Solar Protection	Yes	
Humidity	10%~95%RH, non-condensing	
Regulatory	ROHS, WEEE, REACH	

♦ For custom Imaging Ranges, Operating Temperatures, Temperature Accuracy, Interfaces contact Seek Sales
<https://www.thermal.com/oem-lead-form.html>

- Specified at nominal 25°C ambient operating temperature and nominal measurement distance of 12 inches. Temperature reported is Center Spot temperature, which is an average of the center 36 pixels.
Contact Seek Thermal for performance at other nominal operating temperatures and measurement distances.
- Based on Johnson Criteria.
- Factory default emissivity is set to 0.97. Emissivity is adjustable using the SDK. See data sheet for more information.
- Typical Performance.

Specifications and undocumented specifications are subject to change without notice. For the most up-to-date specifications, visit thermal.com/oem