

AA19L

Athermal Ge Lens

Technical Data



JIANGSU ASCENDENT OPTRONICS INC.

Module	AA19L		Detect	Identify	Verify
Focus Length	19mm				
F number	F1.0				
Lens mounting	M25*0.5				
Lenses back distance range	12.8/18.5mm				
Idoneity of detector diagonal	≤14mm				
FOV (H×V)	17μm384×288	19.5 °×14.7 °	1029m	257m	129m
	25μm384×288	28.4 °×21.5 °	700m	175m	88m
	17μm640×480	32.0 °×25.8 °	1029m	257m	129m
Lenses Structure	2G (spherical*2)		<p>The above data according to the Johnson criterion calculation (1.5 pixels for detection , 6 pixels for identification,12 pixels for verification, the probability is 50%, the contrast of target and background is 1). The target size is calculated based on the critical size of the car(2.3 meters). The actual range will be affected by other factors such as attenuation vary, different climatic conditions, the thermal sensitivity of the detector pixel, noise, image algorithm, target background difference.</p>		
Lenses Material	High pure Ge Mono crystal				
Operating Wave length (μm)	8 ~ 14				
Distortion	< 7.5%				
Central MTF	0.75 @20 line to/mm				
Marginal MTF	0.55@20 line to/mm				
Lens coating	AR				
Coating transmissivity	96%				
Bets imaging range	0.3m ~ ∞				
Focusing	Athermal Fixed				
Intercept	9mm				
Exposed parts waterproof	Yes				
Operating temperature	-40°C ~ +60°C				
Weight	31g (No lens cover)				
Max diameter	Φ29mm				
Length	26.5mm				
Aperture	Fixed circular aperture				
Standard accessories	Front cover				

