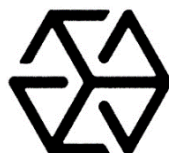


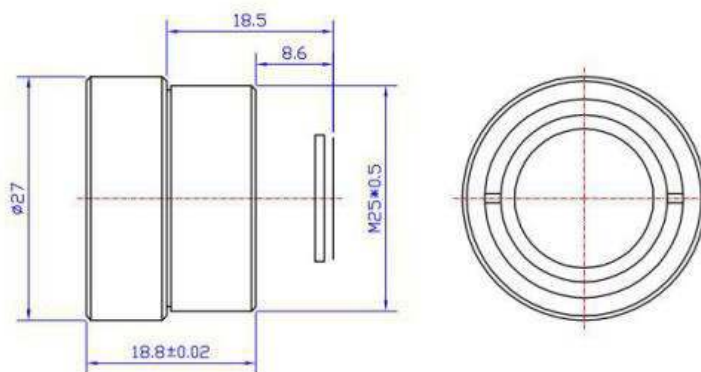
AA13L Athermal Ge Lens

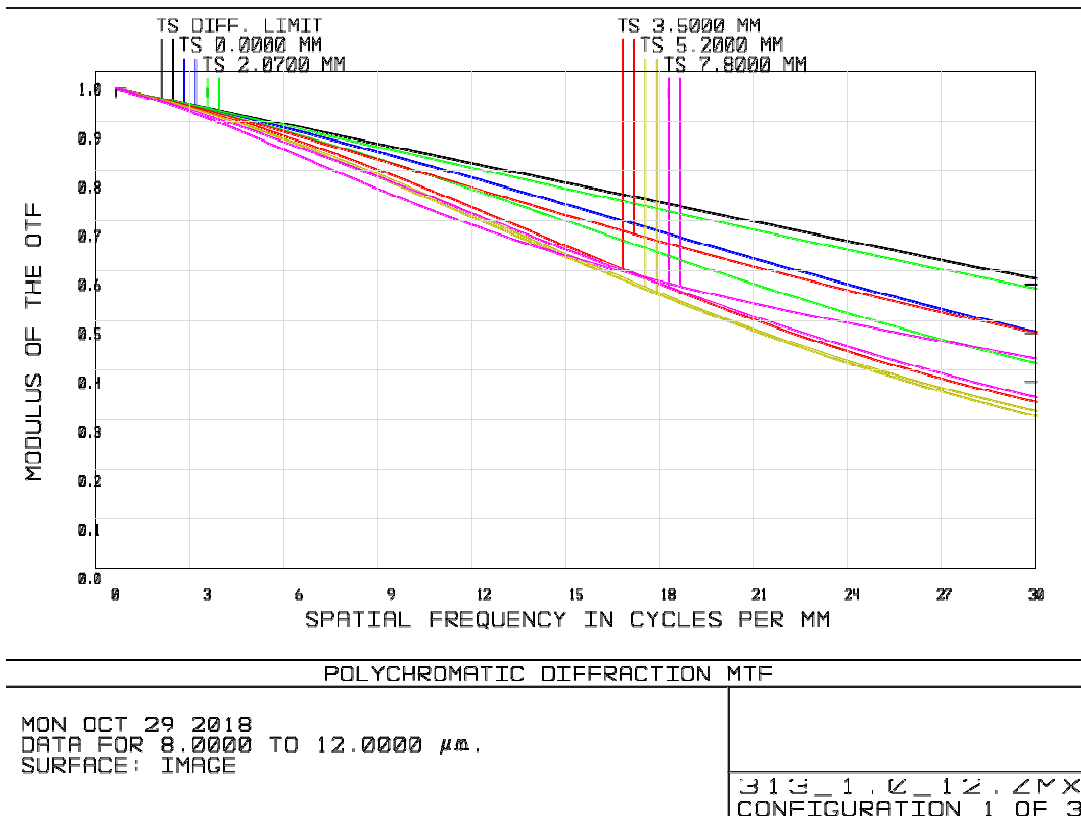
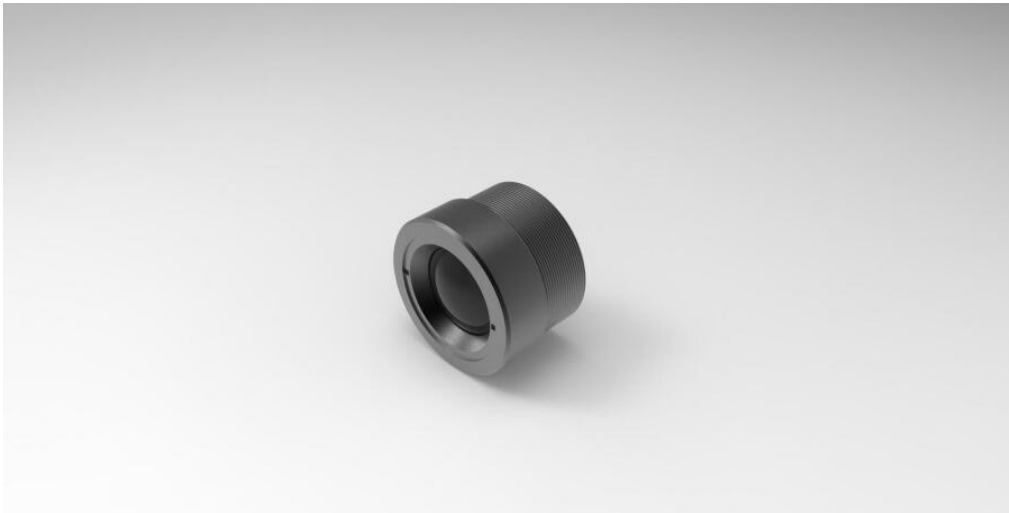
Technical Data

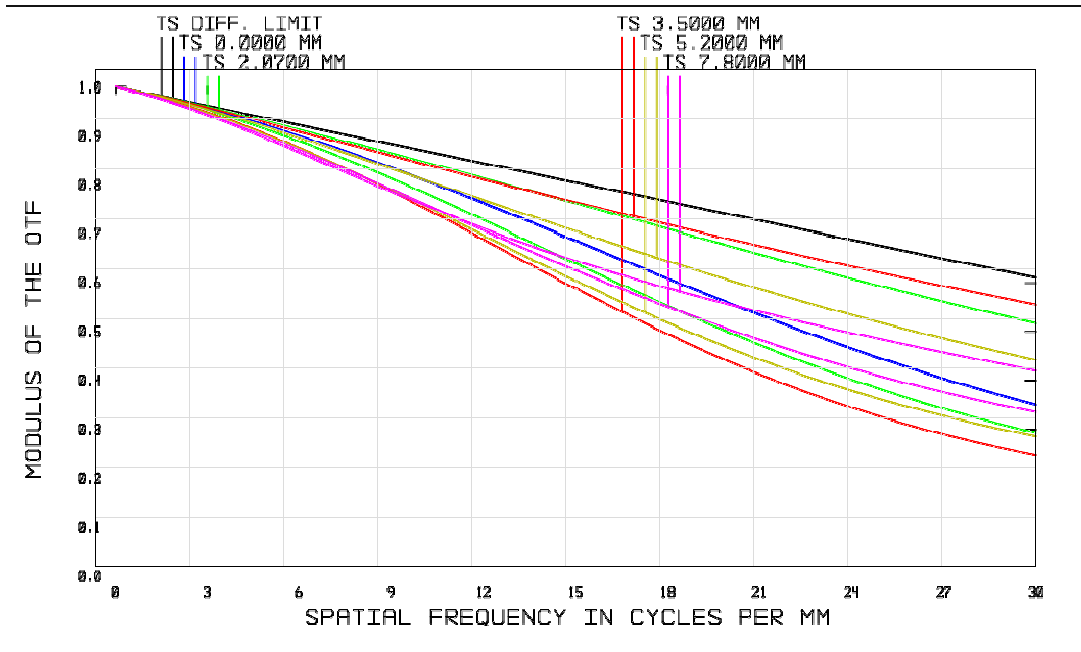


JIANGSU ASCENDENT OPTRONICS INC.

Module		AA13L	Detect	Identify	Verify
Focus Length		13mm			
F number		F1.0			
Lens mounting		M25*0.5			
Adapter core		640x480 shutter			
FOV (H×V)	17μm384×288	29.1 °×21.8 °	382m	96m	48m
	17μm640×480	49.6 °×36.6 °			
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 human(0.75meters). 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 Monocrystal			
Operating Wave length (μm)		8 ~ 14			
Distortion		< 15%			
Central MTF		0.73 @20 line to/mm			
Optical athermalization		Yes			
Focusing		Fixed			
Intercept		8.6mm			
Back distance		18.5mm			
Exposed parts waterproof		Yes			
Operating temperature		-40°C ~ +60°C			
Weight		25.2g (No lens cover)			
Max diameter		Φ27mm			
Length		18.8mm			



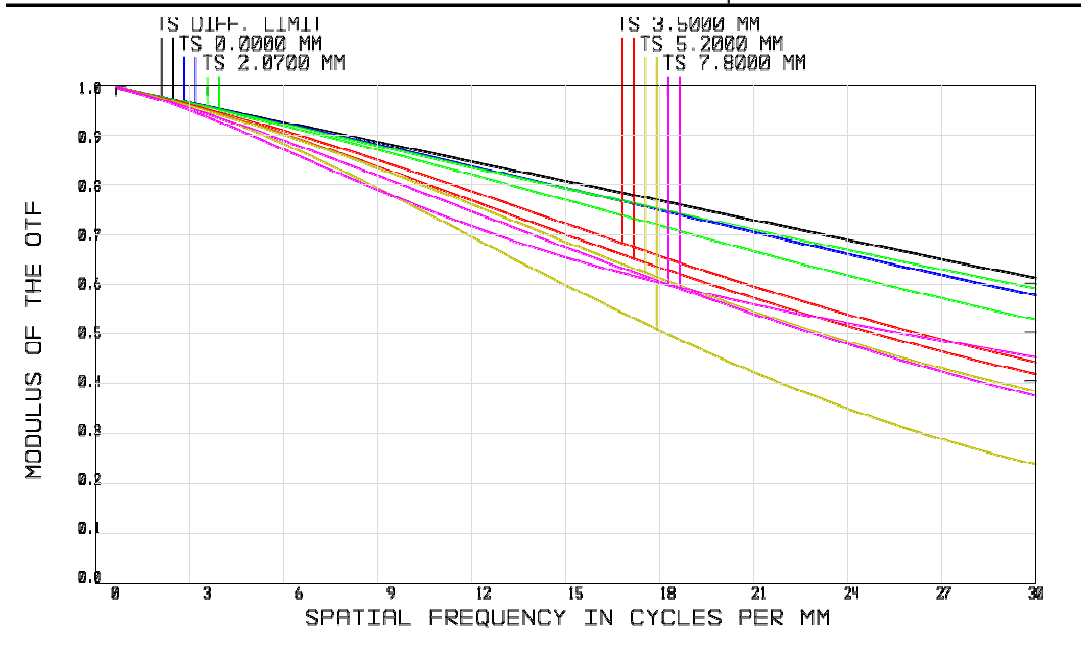




POLYCHROMATIC DIFFRACTION MTF

MON OCT 29 2018
 DATA FOR 8.0000 TO 12.0000 μm .
 SURFACE: IMAGE

313_1.0_12.ZMX
 CONFIGURATION 2 OF 3



POLYCHROMATIC DIFFRACTION MTF

MON OCT 29 2018
 DATA FOR 8.0000 TO 12.0000 μm .
 SURFACE: IMAGE

313_1.0_12.ZMX
 CONFIGURATION 3 OF 3