



福建福特科光电股份有限公司

Foctek Photonics, Inc.

镜头参数 (Parameter of Lens)

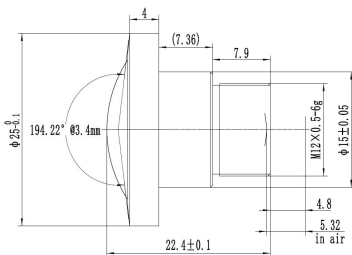
型号 (Model) :

M12-1.13IR (8MP)-F



分辨率 (Resolution)	8 Megapixel			
像面尺寸 (Image Circle)	Φ 3.4mm			
焦距 (Focal length)	1.13mm			
通光孔径 (Aperture)	F2.0			
接口 (Mount)	M12			
视场角 (Field Angle) D×H×V(°)		1/2.7	1/3	1/3.2
	D	194	194	194
	H	194	194	194
	V	194	194	194
畸变 (Optical Distortion)	-97.51%			
主光束入射角 (CRA)	≤ 7.7°			
最近物距 (M.O.D.)	0.15m			
外形尺寸 (Dimension)	Φ 25×22.4mm			
重量 (Weight)	15±2g			
法兰后焦距 (Flange BFL)	/			
光学后焦距 (BFL)	5.32mm (in air)			
机械后焦距 (MBF)	4.8mm (in air)			
日夜共焦 (IR Correction)	Yes			
操作方法 (Operation)	光圈 (Iris)	固定光圈 (Fixed)		
	聚焦 (Focus)	/		
	变焦 (Zoom)	/		
工作温度 (Operating temperature)	-20℃ ~ +60℃			

尺寸 (Size)



尺寸公差 Size tolerance (mm) :	0-10±0.05	10-30±0.10	30-120±0.20
角度公差 Angle tolerance	±2°		



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检测标准 (Test Standard)

型号 (Model) :

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检测项目 Test Items

检测内容 Test Content

1	逆投影检测 Resolution Test	Test Range	$\Phi 2.6$ (diameter 0.4m)
		Center \geq	300 lp/mm
		edge \geq	250 lp/mm
		Image standard	The image should be clear.
环境 Environment		25 \pm 2 $^{\circ}$ C, \leq 1 lux Dark room	

2	外观检测 Appearance Inspection	Apperance (Inner barrel)	60-40: The maximum scratch width is allowed to be 0.06mm, the length allows the 1/4 edge position of the lens; the visually invisible fineness is negligible; the maximum diameter of the pip is allowed to be 0.2mm, and only one lens surface is allowed; the pip is smaller than 0.002mm \sim 0.005m can be neglected; the film color is uniform; there is no obvious color spot on the surface.
		Apperance (Outer barrel)	The lens barrel has no obvious color difference, scratch, break, deformation; the glue is not allowed to overflow into the effective light path; no word drop, clear writing, the same font size, even spacing, etc.
	环境 Environment		25 \pm 2 $^{\circ}$ C 700 \sim 1000 lux



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环境可靠性测试 (Reliability and Environmental Testing)

型号 (Model):

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检测项目 Test Items

检测内容 Test Content

1

温度循环试验
Temperature Cycling Test

镜头在试验温度 $(-30 \pm 3)^\circ\text{C}$ 放置 1.5 小时, $(70 \pm 3)^\circ\text{C}$ 放置 3 小时
的条件下, 放置 2 个循环。试验后, 将镜头放置于室温 24 小时后进行
检验, 各指标均合格。

Lens is placed on two cycles in the test temperature $(-30 \pm 3)^\circ\text{C}$ for 1.5 hours and in $(70 \pm 3)^\circ\text{C}$ for 3 hours separately. Then, the indicators are qualified after placing the lens at room temperature for 24 hours.

2

高温高湿试验
Damp heat test

镜头在试验温度 $(70 \pm 3)^\circ\text{C}$, 湿度 85%RH 的条件下, 放置 48 小时。
试验后, 将镜头放置于室温 24 小时后进行检验, 各指标均合格。

Lens is placed in the test temperature $(70 \pm 3)^\circ\text{C}$, humidity 85% RH for 48 hours. Then, the indicators are qualified after placing the lens at room temperature for 24 hours.

3

跌落试验
Drop Test

镜头在 1 米高 $(\pm 0.1\text{m})$ 处, 自由跌落到混凝土地板上。
试验后, 镜头各指标均合格。

Lens drops from the height of $(1 \pm 0.1\text{m})$ to the concrete ground. After the testing, the indicators are qualified.

4

振动试验
Vibration Test

镜头正弦波振动 2 小时, 在振幅为 1mm, 频率为 50Hz 的条件下, 试验
后, 镜头各指标均合格。

Lens vibrates 2h in sinusoidal wave under 1 mm of amplitude and 50Hz of frequency. After the testing, the indicators are qualified.



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包装规格 (Packing Specification)

型号 (Model) :

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1. Stick label on the surface of lens after capped.
2. Put the lens into the carton box.
3. The unit will be packaged in a corrugated box.
4. Seal the corrugated box with tape and mark the surface.

