



深圳市创威时代光电有限公司
Shenzhen ChuangWei Seculens CO., Ltd.

产品规格书

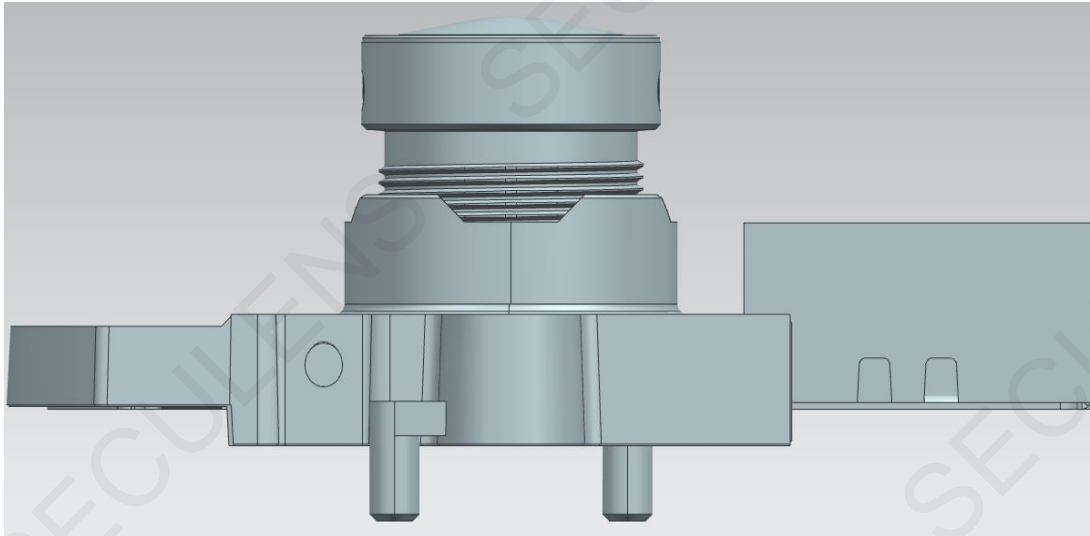
Product Specification

型号:
(Model Name) : 10119-HD+H108+IR0716

编码:
(Part No.) : 01.10119.003.02

客户名称:
(Customer Name):

客户编码:
(Customer Part No.):



图片仅供参考
(picture only for your reference)

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3 变更履历 (Revision History) 变更符号标记 (Mark revised) : ○

版本 (REV.)	变更日期 (DATE)	变更内容 (Revision content)	作成 (Prepared by)	备注 (Remark)
1.0	22.07.18	新规作成 (New Spec Document prepared)		

4.概要 (Outline)

4.1 应用范围 (Application)

适用于我司向贵司提供的镜头产品(The below datasheet is only suit to CWZK products.)

5 主要参数 (Main Items)

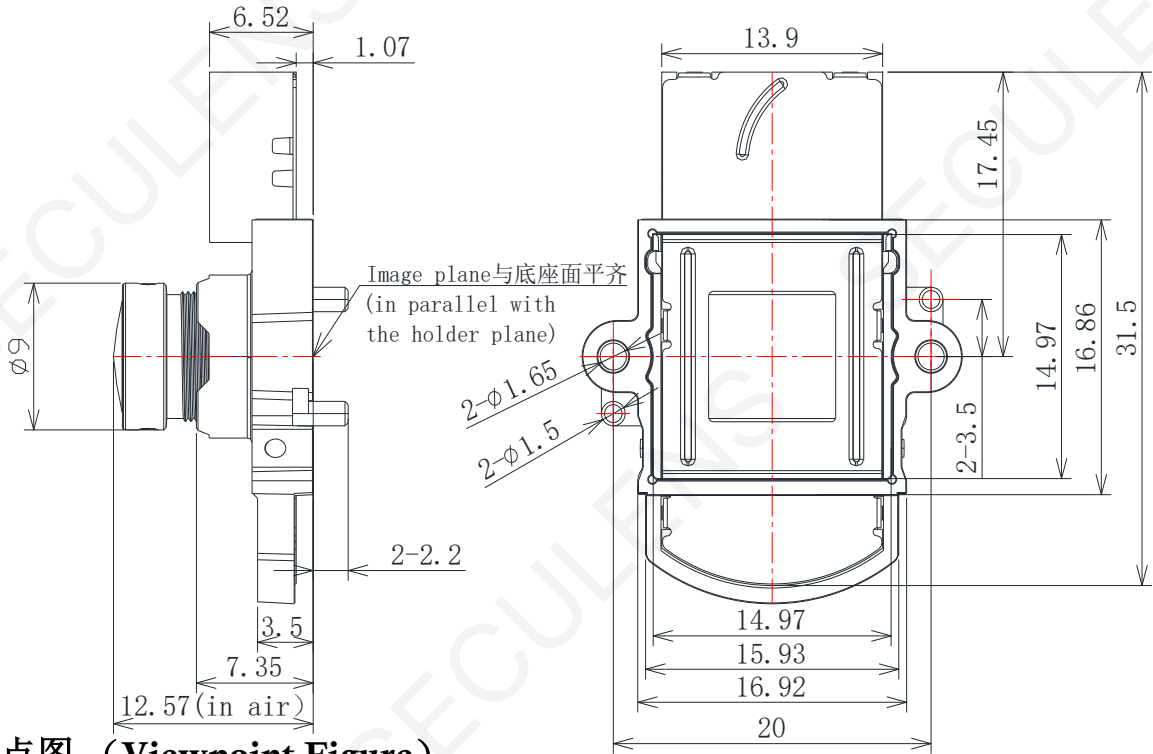
5.1 光学参数规格 (Optical Specifications)

NO	项目 (Items)	具体规格 (Specification)									
1	F No.	2.2±10%									
2	焦距(Focal-Length)	2.3 ±5%									
3	光学后焦(Optical Back Focal Length)	3.78±0.1(in air)									
4	机械后焦(Mechanical Back Focal Length)	3.2±0.2 (in air)									
5	镜头总长(TTL)	12.57±0.2 (in air)									
6	像面大小 (Image circle)	∅6.6 (MAX)									
7	镜片构成 (Lens structure)	1G4P (第一枚镜片为塑胶镜片时, 仅可使用酒精擦拭3次) (The first optical lens is plastic lens, could only be wiped with alcohol 3 times)									
8	接口 (Mount)	M8*P0.35									
9	镜头与底座螺纹配合扭力 (Clamp Force)	50-350gf.cm									
10	视场角 (FOV)	sensor型号	H(水平)		V(垂直)		D(对角)				
		1/2.8" 5.568*3.132*6.388	139.1°		74.9°		170.9°				
		1/2.9" 5.376*3.024*6.168	132.9°		72.5°		161.1°				
		1/3" 5.206*2.938*5.977	127.0°		70.0°		152.4°				
		1/4" 3.84*2.16*4.406	91.5°		52.5°		105.5°				
11	光学畸变 (Optical Distortion)	1/2.8"	-89.0%	1/2.9"	-78.0%	1/3"	-68.0%	1/4"	-26.8%		
12	TV畸变 (TV Distortion)	1/2.8"	-25.3%	1/2.9"	-22.6%	1/3"	-20.2%	1/4"	-9.1%		
13	相对亮度 (Relative Illumination)○	最大像面	15.7%	1/2.8"	15%	1/2.9"	24.0%	1/3"	30.9%	1/4"	65.3%
14	最大主光线夹角 (CRA)	1/2.8"	18.4°	1/2.9"	17.9°	1/3"	17.3°	1/4"	13.4°		
15	红外离焦量 (Infrared defocus)	(红外波长0.85um) 9.6um									
16	光谱透过率 (Spectral transmittance)	待测									
17	近摄距 (M.O.D)	保证性能			0.5m						
		中心可聚焦			0.35m						
18	解像标准 (Resolution)	分辨率 (Resolution): 1920*1080 (2MP)									
19	最大像面MTF值	125lp/mm S:0.247/T:0.05									
20	建议芯片封装倾斜规格 (tilt tolerance of sensor packaging)	/									
21	重量 (Weight)	待测									
22	操作方法 (Operation)	聚焦 (Focus)			手动 (Manual)						
		光圈 (Iris)			固定 (Fixed)						
23	环保&安全 (HSF&Safety)	RoHS									



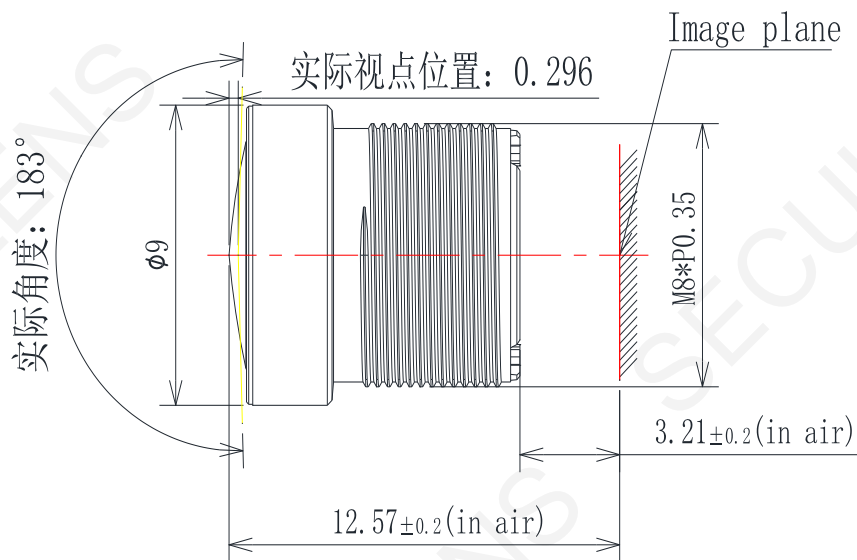
5.2 机构参数规格 (Mechanical Specifications)

5.2.1 外形尺寸图 (Dimension Figure)



5.2.2 视点图 (Viewpoint Figure)

最大角度

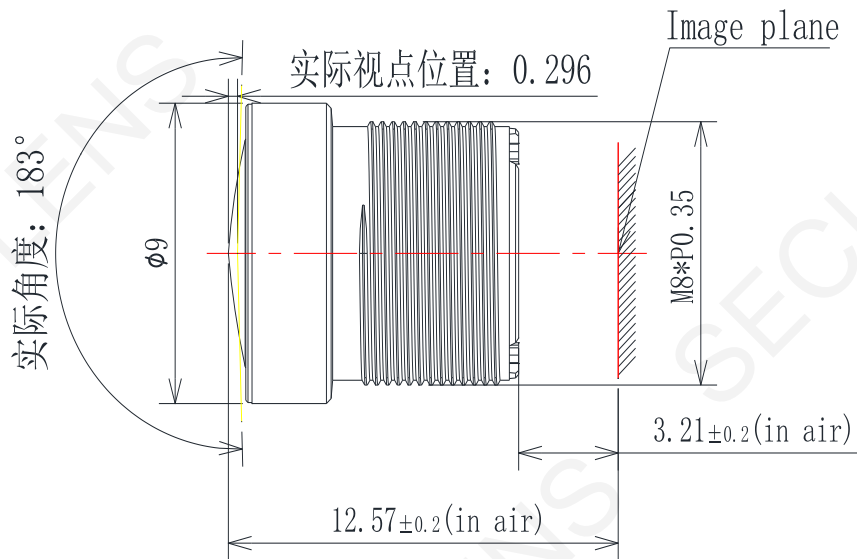


未注公差 (Unmarked Tolerance): $\Phi \pm 0.1$, $L \pm 0.15$

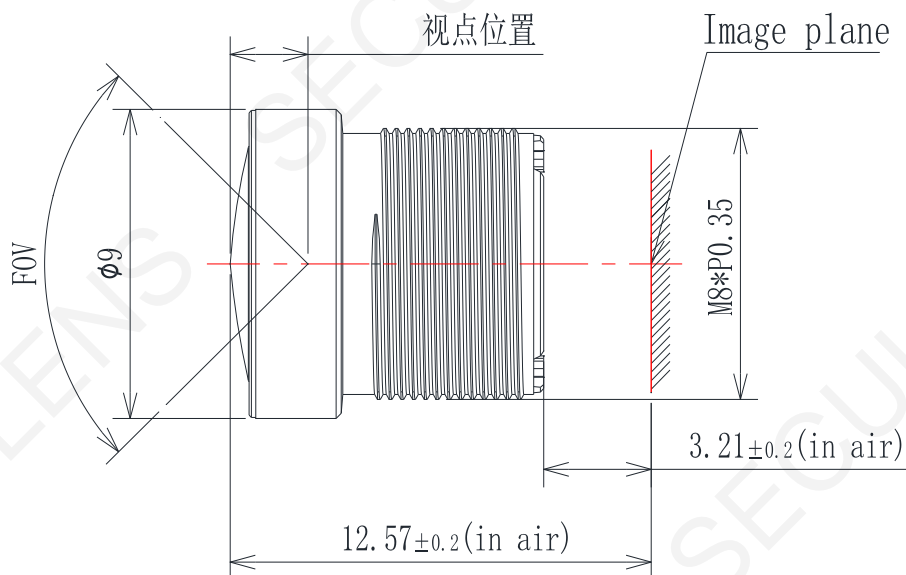
本规格书未注单位 (Unit is not indicated in the document.): mm

5.2.2 视点图 (Viewpoint Figure)

最高光线



不同视场角视点信息



未注公差(Unmarked Tolerance): $\Phi \pm 0.1$, $L \pm 0.15$

本规格书未注单位(Unit is not indicated in the document.): mm

5.2.3 视点信息:

全像高	视场角	视点	备注	全像高	视场角	视点	备注
2.1	51.1	3.18		6.9			
2.2	53.5	3.13		7			
2.3	55.8	3.08		7.1			
2.4	58.1	3.03		7.2			
2.5	60.4	2.98		7.3			
2.6	62.7	2.94		7.4			
2.7	65.0	2.89		7.5			
2.8	67.3	2.85		7.6			
2.9	69.6	2.81		7.7			
3	71.9	2.76		7.8			
3.1	74.2	2.72		7.9			
3.2	76.5	2.68		8			
3.3	78.9	2.64		8.1			
3.4	81.2	2.60		8.2			
3.5	83.5	2.56		8.3			
3.6	85.9	2.52		8.4			
3.7	88.2	2.48		8.5			
3.8	90.6	2.44		8.6			
3.9	93.0	2.40		8.7			
4	95.4	2.36		8.8			
4.1	97.9	2.32		8.9			
4.2	100.3	2.27		9			
4.3	102.9	2.21		9.1			
4.4	105.4	2.16		9.2			
4.5	108.0	2.11		9.3			
4.6	110.6	2.05		9.4			
4.7	113.3	2.00		9.5			
4.8	116.0	1.94		9.6			
4.9	118.8	1.88		9.7			
5	121.6	1.83		9.8			
5.1	124.5	1.77		9.9			
5.2	127.5	1.71		10			
5.3	130.5	1.64		10.1			
5.4	133.6	1.58		10.2			
5.5	136.8	1.51		10.3			
5.6	140.1	1.44		10.4			
5.7	143.5	1.37		10.5			
5.8	146.9	1.29		10.6			
5.9	150.5	1.22		10.7			
6	154.3	1.13		10.8			
6.1	158.2	1.04		10.9			
6.2	162.3	0.95		11			
6.3	166.6	0.84		11.1			
6.4	171.3	0.73		11.2			
6.5	176.5	0.60		11.3			
6.6				11.4			
6.7				11.5			
6.8				11.6			

备注:

1. 最大像高提供至镜头支持的最大靶面（通用产品相对照度按照20%，特殊产品根据需求再联络）；
2. 视点深度一律按照空气中尺寸计算；并且以镜头最前端为起始位置；
3. 模拟参数时，物距暂定按照无穷远计算——此时镜头距离前窗玻璃最远，干涉风险最大；
4. 各数据的公差按照：视场角精确到0.1度，视点精确到0.01mm；
5. 镜头总长按照输出数据时的长度为准，便于前后视点转化（视点到sensor面的距离+视点距离=镜头总长）；

5.3 IR-CUT参数规格(IR0716) (IRCUT Specification)

NO	项目ITEM	条件Condition	单位Unit	标准Standard
1	产品外形尺寸(Product size)	装配外形(Assembly exterior)	mm	31.5*13.9*1.7
2	开放口径(Opening Aperture)	-	mm	7*7
3	线长(Wire Length)	-	mm	70±5
4	线径(Wire diameter)	-	mm	0.6
5	绝缘等级(Insulation class)	-	-	A
6	端子保持力(Terminal retentivity)	-	N	≥5
7	线圈阻抗(Coil Resistance)	20℃	Ω	20±5
8	静态保持力(Static retention force)	-	g	≥0.6
9	通电电压(Electric voltage)	参照环境参数规格Refer to the environmental parameter specifications	V	3.5~6.0
10	通电时间(Electric time)	参照环境参数规格Refer to the environmental parameter specifications	ms	100~200
11	推荐驱动条件(Recommend Driving Condition)	参照环境参数规格Refer to the environmental parameter specifications	-	端口电压Port voltage: 3.5V 驱动秒时Driving time: 100ms

备注：产品通正反向电压，通断电时间为：通电100ms~200ms，断电30s~60s，不通电时滤光片保持不动。

Note: Positive and negative voltage. Time: power on 100ms ~200ms, power off 30s~60s. Filter does not move when power is off

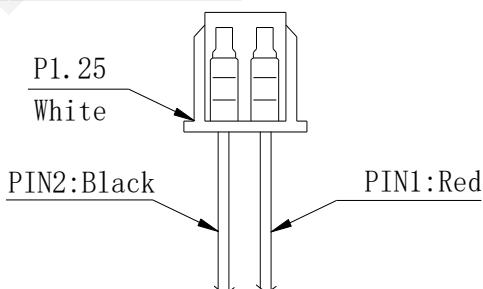
滤光片规格 (IR Filter Specifications)

红外波光片 (IR Filter)	镀膜方式 (Coating method)	单面镀膜Single side coating
	滤光片基材 (Base material)	D263T
	尺寸 (Size)	8.2mm*7.6mm*(0.21mm±0.02)
	镀膜规格 (Coating Spec)	350nm~380nm Tave<3%
		420nm±10nm T=50% 斜率20%-80%<20nm
		440nm~600nm T>85%, Tave>93%
		645nm±10nm T=50%, 斜率80%-20%<20nm
680nm T<5%		
700nm~950nm Tave<1% T<1%		
白片波光片 (Dummy Glass)	镀膜方式 (Coating method)	单面镀膜Single side coating
	滤光片基材 (Base material)	D263T
	尺寸 (Size)	8.2mm*7.6mm*(0.21mm±0.02)
	镀膜规格 (Coating Spec)	420nm~950nm T>92% Tave>96%

切换模式 (Switch type)

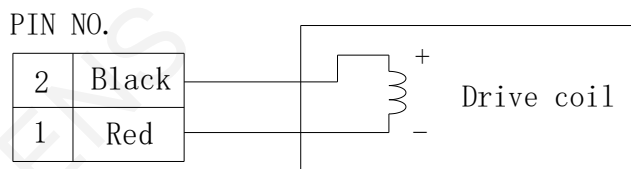
区分 Distinction	黑线Black line	红线Red line	状态State
极性Polarity	(+)	(-)	白玻璃片工作 (夜晚) Dummy glass work
	(-)	(+)	红外滤光片工作 (白天) IR Filters work

端子定义terminal:



端子线外径OD: 0.6mm

接线示意图wiring diagram:



5.4 光学检测标准 (Optical Performance)

No.	检测项目 (Items)	描述 (Description)
1	解像力 (Resolution)	<p>以大华此镜头来料检测标准文件为准 (分辨率: 2MP)</p> <p>Based on Dahua this lens material test standard document</p>
2	外观标准 (Appearance Standards)	<p>2.1镜头内污 (LENS DUST) A:规格 60-40 伤痕: 宽度 <60um, 长度和 <D/2, ≤15um不计; 脏污: 单点直径 <200um, 100~200um点 ≤3个。</p> <p>2.2检验数量 (INSPECTION RATE) 全数检验</p> <p>2.3其他外观(Other appearance) 外表面颜色均匀, 无明显缺陷、污渍、异物伸出、明显划伤和收缩; 胶水不得溢入有效通光内。</p> <p>2.1 LENS DUST A: Specification 60-40 Scratch: width<60um, total length<D/2, ≤15um ignored; Smudge: Single dot diameter <200um, 100~200um dot ≤3 pcs</p> <p>2.2INSPECTION RATE 100%</p> <p>2.3 Other appearance Outside surface uniform color; no visible flaws, stains, foreign bodies extended, obvious scratch or contraction; no glue spill into the effective aperture.</p>

5.5 环境参数规格 (Environment Specifications)

No.	环境描述 (Items)	条件 (Description)
1	存放环境 (Storage condition)	-30°C~+80°C; 10-90%RH (No condensing)
2	工作环境 (Operation condition)	-30°C~+70°C; 10-90%RH (No condensing)

6 信赖性测试(Reliability Test)

No.	项目 (ITEM)	测试条件 (CONDITION)
1	高温存放试验 Storage Test At High Temperature	镜头在80℃温度中存放48小时，之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to 80℃ for 48 hours and then to normal temperature/humidity for 6 hours
2	低温存放试验 Storage Test At Low Temperature	镜头在-30℃温度中存放48小时，之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to -30℃ for 48 hours and then to normal temperature/humidity for 6 hours
3	冷热冲击试验 Temperature Cycle Test	镜头在-30℃条件下保持30分钟，然后升温至+80℃，稳定后保持30分钟作为一个周期，共10个周期。之后再存放在常温常湿环境中恢复6小时后，所有规格满足规定要求 All specification are to be satisfied after lens is exposed to -30℃ for 30min, Tank temperature change +80℃ for 30min as one cycle, 10 cycle shall be performed. And then to normal temperature/humidity for 6 hours
4	振动试验 Vibration Test	镜头在振幅为1.5mm、频率为10-55Hz的正弦波参数下，在三个互相垂直的轴线上依次振动25分钟后，镜头无松动并满足所有规格要求 All specification are to be satisfied after lens is subjected to the sine wave of 1.5mm amplitude and 10-55Hz directions for 25 minutes each

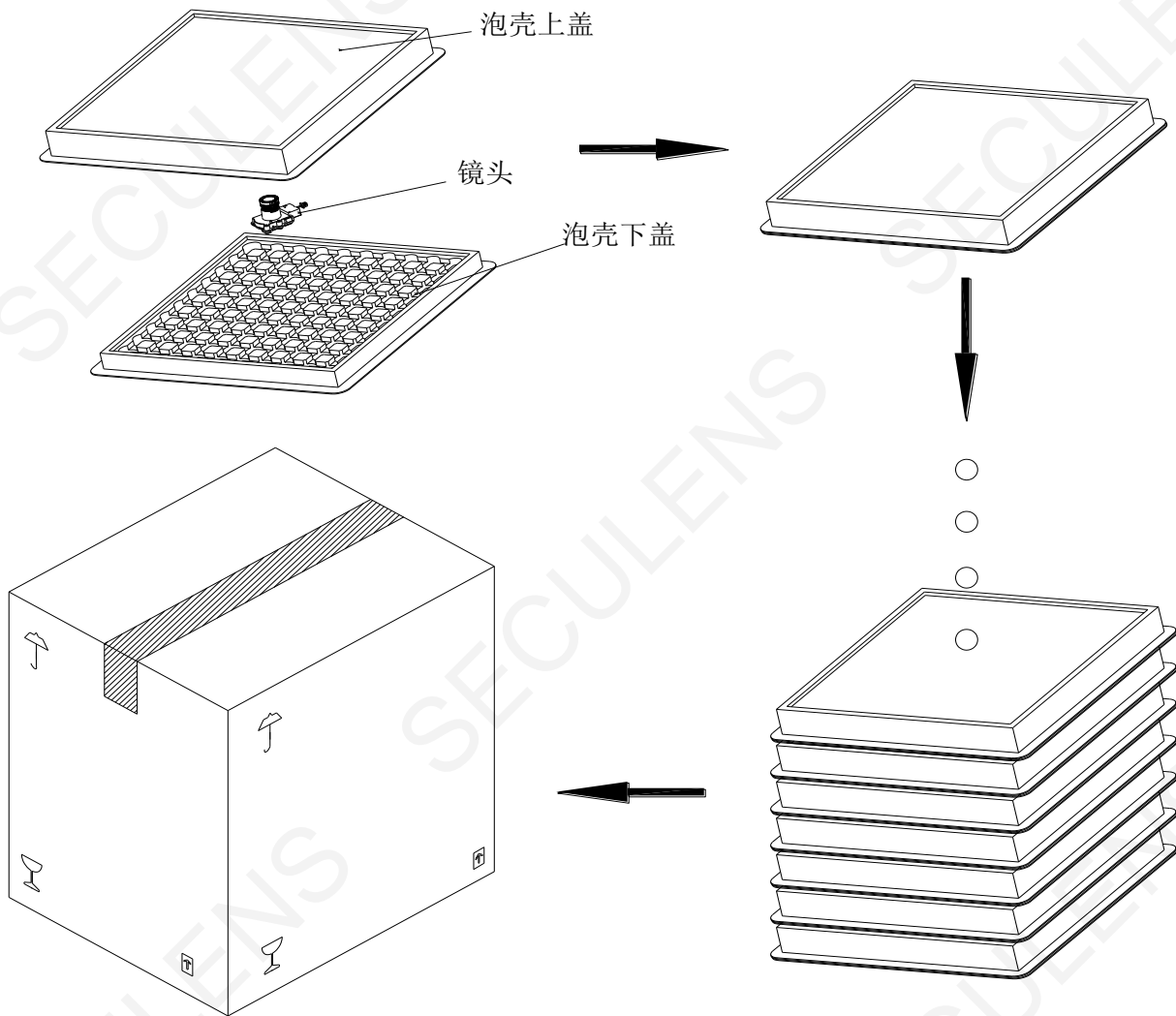
6 信赖性测试(Reliability Test)

No.	项目 (ITEM)	测试条件 (CONDITION)
5	跌落试验 drop test	1. 高度：包装后，高度1m； 2. 落下方向：六面八角； 3. 次数：各一次； 上述实验条件后作动无异常。(NO abnormalities for operation after testing with above experiment conditions) 1.Height: 1m after packaged; 2.Direction: All directions; 3.NO abnormality after experiment above all.
6	静置测试 (玻塑混合产品， 全玻不涉及) Static Test (Only for plastic &glass mixed lens)	测试条件：室内常温环境； 测试要求：镜头与芯片固定并对焦清晰后实拍截图，然后放置30天再进行实拍截图，对比放置前后图片中心及周边解像变化；变焦镜头需要对比试验前后镜头的后焦及MTF（或实拍图片）的变化，电动变焦需要一直保持上电状态，静置过程中不重新聚焦，后续根据项目进展不定期抓图；2次抓图均需符合调焦标准，否则视为NG； 测试样品要求：定焦镜头≥15PCS，变焦镜头≥6PCS； 判定条件：符合DH静置试验手順书要求规格。 Test requirement: 1) Fix the Lens and and sensor first and focus it until the image is sharp, then take the screenshot. Leave it for 30 days and then take screenshot again. Compare the image quality from center and peripheral area; 2) Regarding vari-focal lens, shift of back focal length and MTF value(or photographic test' s result)must be recorded. During the test, the power of the motor must keep being on and refocus is prohibited. Screenshot must be taken according to the development of the project; 3) The image quality must pass the requirements, otherwise sorted as NG product. Test Sample requirement: Fixed-focal lens≥15pcs, Vari-focal lens≥6pcs; Criteria: Meet to DH static test specification.
7	耐久试验 (Durability)	试验标准： • VCM马达： 电流：0~90~0 mA，持续1秒 Current : 0~90~0 mA for 1sec 方向：+Z 方向 Direction : +Z direction 周期：1轮=0.5秒开启→ 0.5s 关闭 Cycle : 1cycle= 0.5s ON→ 0.5s OFF 温度：23C° ±2C° Temperature : 23C° ±2C° 时间：300,000轮 Times : 300,000cycles • IR-cut filter section IN ≅ OUT 驱动100ms，断电2500ms 往复驱动，50000次 0.5 ~ 1.0 seconds for each reciprocating 50,000 times 测试项目： <input checked="" type="checkbox"/> IR-cut <input type="checkbox"/> VCM马达 <input type="checkbox"/> 不涉及

7 包装规格 (Package)

1. 镜头盖上镜头盖后, 放入泡壳。

2. 盖上泡壳上盖, 泡壳上贴标示票。



4. 密封胶带, 箱子外面贴标示票。

3. 装满镜头的泡壳抽真空后重叠放入纸箱。

※注: 包装纸箱可根据客户订单灵活选用, 以上包装以纸箱 (320*240*490) 包装示例

数量:

 待定 PCS/盒

 待定 盒/箱

 待定 PCS/箱