

## 产品规格书

### Product Specification

产品名称:4mm 1/2.7" 高清镜头	
Product Name:4mm 1/2.7" High-definition Lens	
型号:	YT10043-2MP+H49+LG0031
Model:	YT10043-2MP+H49+LG0031

客户承认 (Customer Approved)	承认 (Approved by)	检印 (Reviewed by)	作成 (Prepared by)

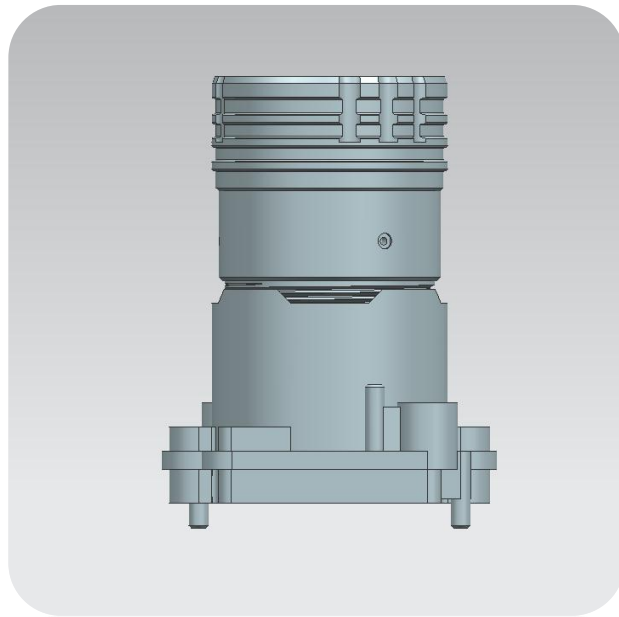
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图片仅供参考  
(picture only for your reference)

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3 变更履历 (Revision History)

版本 (REV.)	变更日期 (DATE)	变更内容 (Revision content)	作成 ( Prepared by)	备注 (Remark)
1.0	18.06.07	新规作成 (New Spec Document prepared)	LQ	
1.1				
1.2				
1.3				

## 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 YTOT products.)

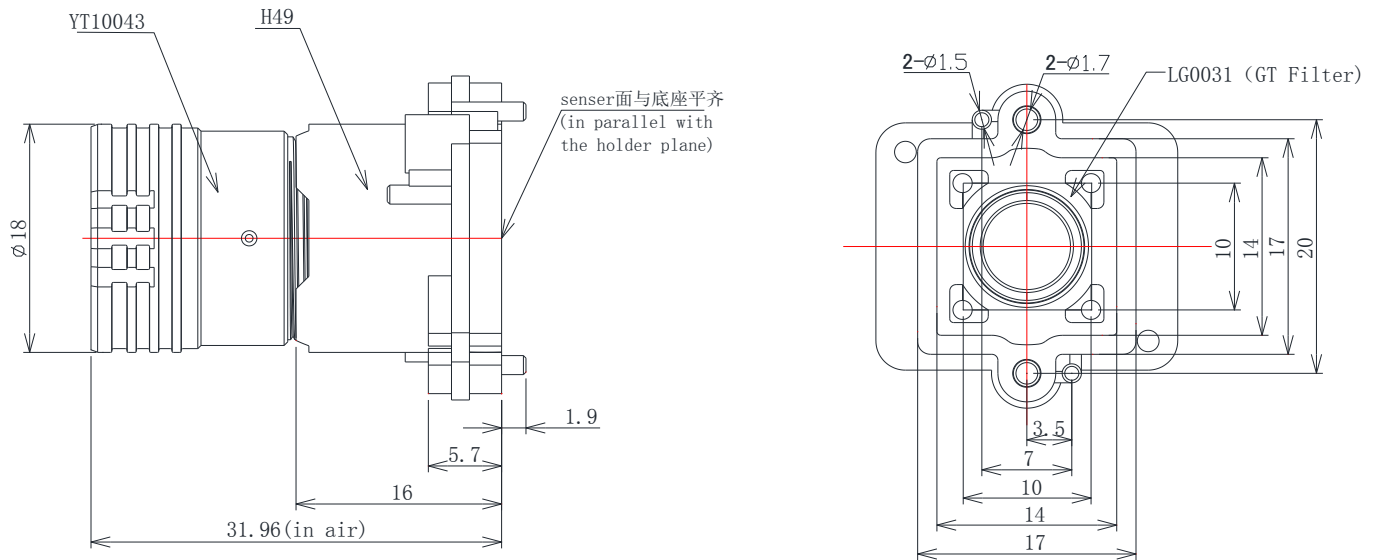
## 5 主要参数 (Main Items)

### 5.1 光学参数规格 (Optical Specifications)

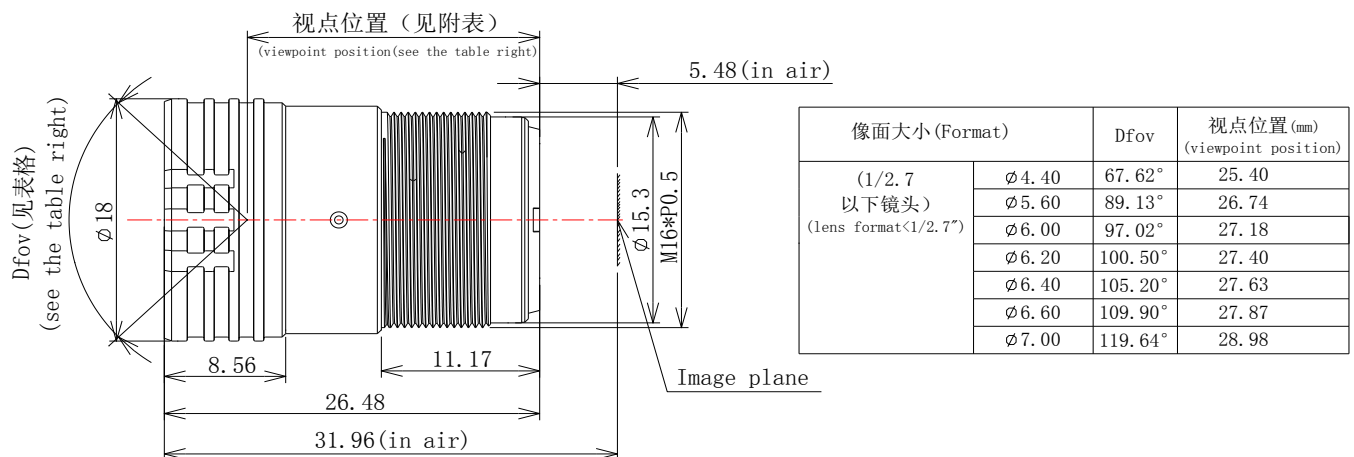
NO.	项目 (Items)	Specification					
1	F No.	0.95±5%					
2	焦距(Focal-Length)	4 ±5%					
3	光学后焦 (Optical Back Focal Length)	5.72±0.1 (in air)					
4	机械后焦 (Mechanical Back Focal)	5.48±0.2 (in air)					
5	镜头总长(TTL)	31.96±0.2 (in air)					
6	像面大小 (Image circle)	Φ6.6(1/2.7") (MAXΦ6.9)					
7	镜片构成 (Lens structure)	5G4P					
8	接口 (Mount)	M16*P0.5					
9	镜头与底座螺纹配合扭力 (Clamp Force)	60-600gf.cm					
10	视场角(FOV)	sensor型号	H(水平)	V(垂直)		D(对角)	
		1/2.7"	92.3°	48.7°		109.9°	
		1/2.8"	88.4°	47.0°		105.2°	
		1/2.9"	84.8°	45.3°		100.5°	
11	光学畸变 (Optical Distortion)	1/2.7"	-40.8%	1/2.8"	-37.5%	1/2.9"	-34.4%
12	相对亮度 (Relative Illumination)	1/2.7"	59.0%	1/2.8"	60.0%	1/2.9"	63.0%
13	最大主光线夹角 (CRA)	1/2.7"	8.3°	1/2.8"	8.1°	1/2.9"	7.8°
14	近摄距 (M.O.D)	0.2m					
15	解像标准 (Resolution)	分辨率 (Resolution): 1920×1080 (2MP)					
		投影出: 中心: 160本清晰;ø4.5:125本清晰; ø6:63本线条分开, 1/2拖影即可; center:160lp/mm clear;ø4.5:125lp/mm clear; ø6:63lp/mm lines separate apart, 1/2 smear					
16	重量 (Weight)	/					
17	操作方法 (Operation)	聚焦 (Focus)		手动 (Manual)			
		光圈 (Iris)		固定 (Fixed)			
18	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)



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

### 5.3 光学检测标准 (Optical Performance)

No.	检测项目 (Items)	描述 (Description)
1	解像力 (Resolution)	<p>1.1: TV实拍解像条件 (Condition) A:Chart:社内实拍chart B:实拍距离(Distance): 0.84m</p> <p>1.2: 实拍方法(Method) A:旋转镜头调焦得到最清晰的像面中心(Adjust the machine interface to get the most clear image plane center)</p> <p>1.3: 实拍标准(Criteria) 2MP: 投影出: 中心: 160本清晰;Ø4.5:125本清晰; Ø6:63本线条分开, 1/2拖影即可; center:160lp/mm clear;Ø4.5:125lp/mm clear; Ø6:63lp/mm lines separate apart, 1/2 smear</p>
2	外观标准 (Appearance Standards)	<p>2.1镜头内污 (LENS DUST) A:规格 60-20 伤痕: 宽度 &lt;60um, 长度和 &lt;D/2, ≤15um不计; 脏污: 单点直径 &lt;200um,100~200um点 ≤3个。</p> <p>2.2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; 脏水不得溢入有效通光内。</p> <p>2.1 LENS DUST A: Specification 60-20 Scratch: width&lt;60um, total length&lt;D/2, ≤15um ignored; Smudge: Single dot diameter &lt;200um, 100~200um dot ≤3 pcs</p> <p>2.2 Other appearance Outside surface uniform color; no visible flaws, stains, foreign bodies extended, obvious scratch or contraction; no glue spill into</p>

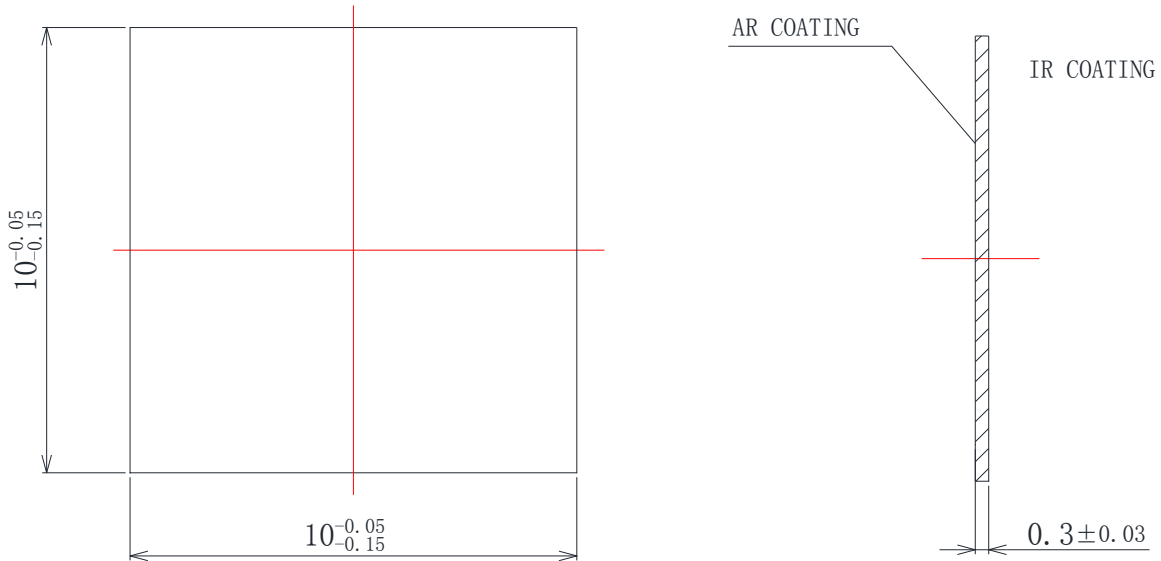
### 5.4 环境参数规格 (Environment Specifications)

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)	-20°C~+60°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

## 7 IR-FILTER规格 (IR-FILTER Specifications) LG0031



### 镀膜要求:

	波长 (nm)	Transmission (%)
IR	350nm~380nm	Tave<3%
	420±10nm	T=50% 斜率20%-80%<20nm
	440nm~600nm	T>85%, Tave>93%
	645±10nm	T=50% , 斜率20%-80%<20nm
	680nm	T<5%
	700nm~950nm	Tave<1% , T<1%
AR	430nm~635nm	R<0.8%

### 信赖性要求:

阶段	温度	相对湿度	保温时间
1	+85° C	85%	48小时
2	+100° C	0%	24小时
3	-20° C	0%	24小时
4	室温	室内状态	24小时

要求: 实验前后分光特性不允许出现变化, 实验后膜层不能出现剥落及裂纹。



## 8.镜头包装式样书 Lens Package Standard

機種P/N: YT10043-2MP+H49+LG0031

类型Type: M16模组 Lens module

版本Revision: V0

承认Approved	检印Reviewed	作成Prepared

步骤Step	图示Picture	步骤Step	图示Picture	步骤说明Step description:
1		4		<p>1.镜头前端盖上保护盖，底座端贴上防尘膜； The front end of the lens is covered with a protective cap, and the bottom end is covered with a dustproof film;</p> <p>2.底端朝下，按照正确指示方向放入泡壳中； The ICR bottom end downwards, and place the lens into the blister box in the specified direction;</p> <p>3.装满之后，盖上泡壳盖；放入干燥剂； After blister box full, cover the upper blister; add desiccant;</p> <p>4.泡壳上贴标示票，标示数量后，用正常PE袋抽真空包装； Stick label on the blister, mark the QTY and other related information, and vacuum packed with PE bag;</p> <p>5.将包好的泡壳重叠放入小纸箱，上下及空隙用气泡纸填充； Place the well-packed blister boxes in the carton and fill them with air-bubble paper.</p> <p>6.纸箱用胶带密封，纸箱上方贴标示票（根据客户要求） Sealed with adhesive tape, label marked on the outer carton(according to customer requirements)</p> <p>7.在标示票上注明每箱数量，箱数，毛重等相关信息； Specify QTY, Carton No., GW and other relevant information on carton label;</p> <p>8.用捆包带对纸箱进行“十”字扎带包装； Carton strap packed</p> <p>每盒数量pcs/box: <u>30</u> pcs 每箱数量pcs/carton: <u>17</u> 盒box <u>510</u> pcs</p>
2		5		
3		6		

### 包装明细Package List

包材名称 Package Name	规格Specification	数量QTY	备注Remarks
泡壳blister box	YT10043+H49 泡壳	17/盒box	一箱所需量 A box of requirements
镜头盖Lens cap	1033镜头盖	510/pcs	一箱所需量 A box of requirements
PE袋 PE bag	8mm*370mm*380mm	17/枚coins	一箱所需量 A box of requirements
纸箱Carton	330mm*250mm*490mm	1个self	一箱所需量 A box of requirements
胶带Tape	茶色透明Tawny transparency (宽wide 48mm)	若干several	一箱所需量 A box of requirements
气泡纸Bubble paper	210mm*320mm	若干several	一箱所需量 A box of requirements
橡皮筋 Rubber band	/	/	/

版本 Revision	日期 Date	修订内容 Revision content	作成 Prepared by	配布 单位Related Dept.	生管PMC	品保Quality dept.	成品仓 warehouse			
0	2018.05.11	新规作成First release	LQ							
1										
2										
3										

YTOT

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