

镜头参数 (Parameter of Lens)

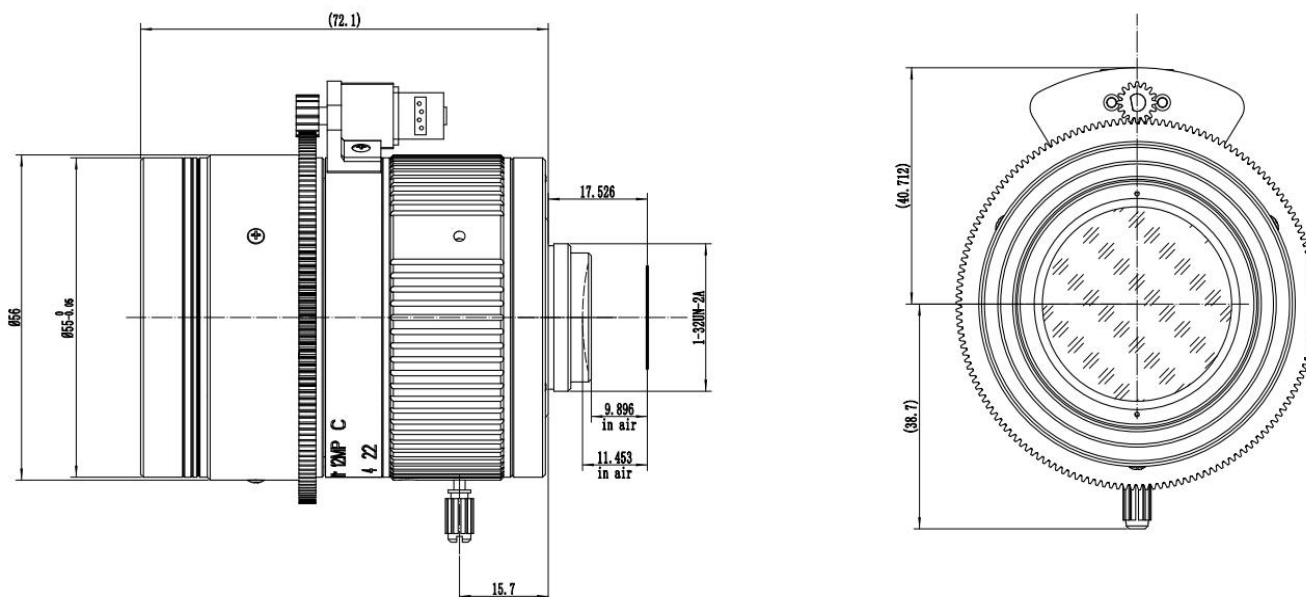
型号 (Model) :

C-M50IR(12MP)-11F14-E



分辨率 (Resolution)	12 Megapixel		
像面尺寸 (Image format)	1.1"(Φ17.6mm)		
焦距 (Focal length)	50±5%mm		
通光孔径 (Aperture)	F1.4±10%		
接口 (Mount)	C		
视场角 (Field Angle) D×H×V(°)	" "	1.1 (IMX304)	1 (IMX267)
		D	20.7
	H	16.68	16.68
	V	12.1	8.8
畸变 (Optical Distortion)	-2.13% in φ17.6mm		
主光束入射角 (CRA)	10.5°		
最近物距 (M.O.D.)	1m		
外形尺寸 (Dimension)	Φ55×72.1mm		
重量 (Weight)	/		
法兰后焦距 (Flange BFL)	17.526mm		
光学后焦距 (BFL)	11.453mm (in air)		
机械后焦距 (MBF)	9.896mm (in air)		
日夜共焦 (IR Correction)	Yes		
操作方法 (Operation)	光圈 (Iris)	手动光圈 (Manual)	
	聚焦 (Focus)	电动聚焦 (Motorized)	
	变焦 (Zoom)	/	
工作温度 (Operating temperature)	-30℃~+70℃		

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°

电机 (Motor)

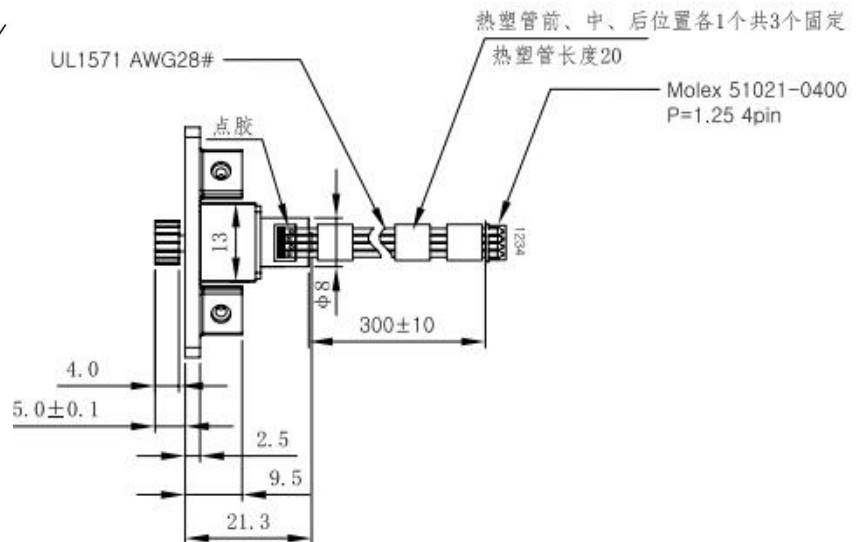
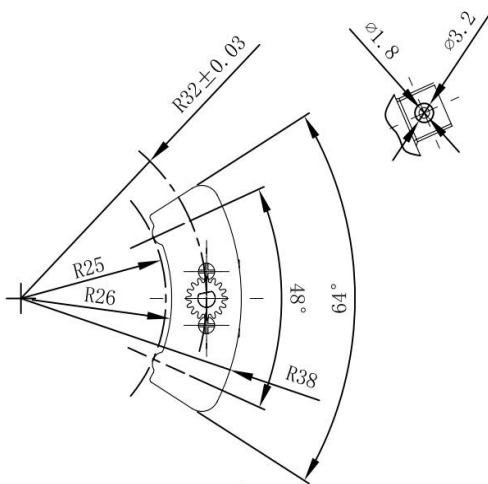
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ELECTRICAL CHARACTERISTIC

1. RATED VOLTAGE: 5V DC
2. COIL RESISTANCE: $30\Omega \pm 7\%$
3. No. OF PHASES: 2PHASES
4. STEP ANGLE: 18° /STEP
5. EXCITATION METHOD: 2-2PHASE EXCITATION
6. DRIVE MODE: BI-POLAR DRIVE
7. MAX. STARTING PULSE RATE: 1200PPS Min. /5VDC
8. MAX. SLEWING PULSE RATE: 2500PPS Min. /5VDC
9. INSULATION CLASS: CLASS E FOR COILS
10. SPEED REDUCING RATION: 1:156
11. INSULATION RESISTANCE: $5M\Omega$ Min. /100 VDC
12. INSULATION STRENGTH: 3mA max. 100VAC/1 SECOND
13. OPERATING TEMPERATURE RANGE: $-20 \sim +70^\circ\text{C}$
14. OUTPUT TORQUE: 200gf-cm(min) AT 500pps 5VDC

Output Tooth Parameter	
Pressure angle	20°
Modulus	0.4
Number of teeth	16
Tip diameter	$\Phi 7.2$
Pitch diameter	$\Phi 6.4$
Root diameter	$\Phi 5.4$
Precision level	JGMA-116-02 Four Glass

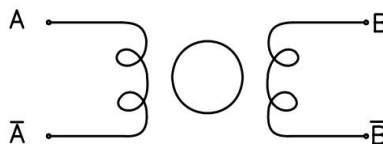


SEQUENCE OF EXCITATION

Step Phase	1	2	3	4
A	+	+	-	-
\bar{A}	-	-	+	+
B	-	+	+	-
\bar{B}	+	-	-	+

Output Shaft Rotation CW

CONNECTION DIAGRAM



PIN NO.	COLOR	
1	RED 红	A
2	YELLOW 黄	A-
3	BROWN 棕	B
4	ORANGE 橙	B-

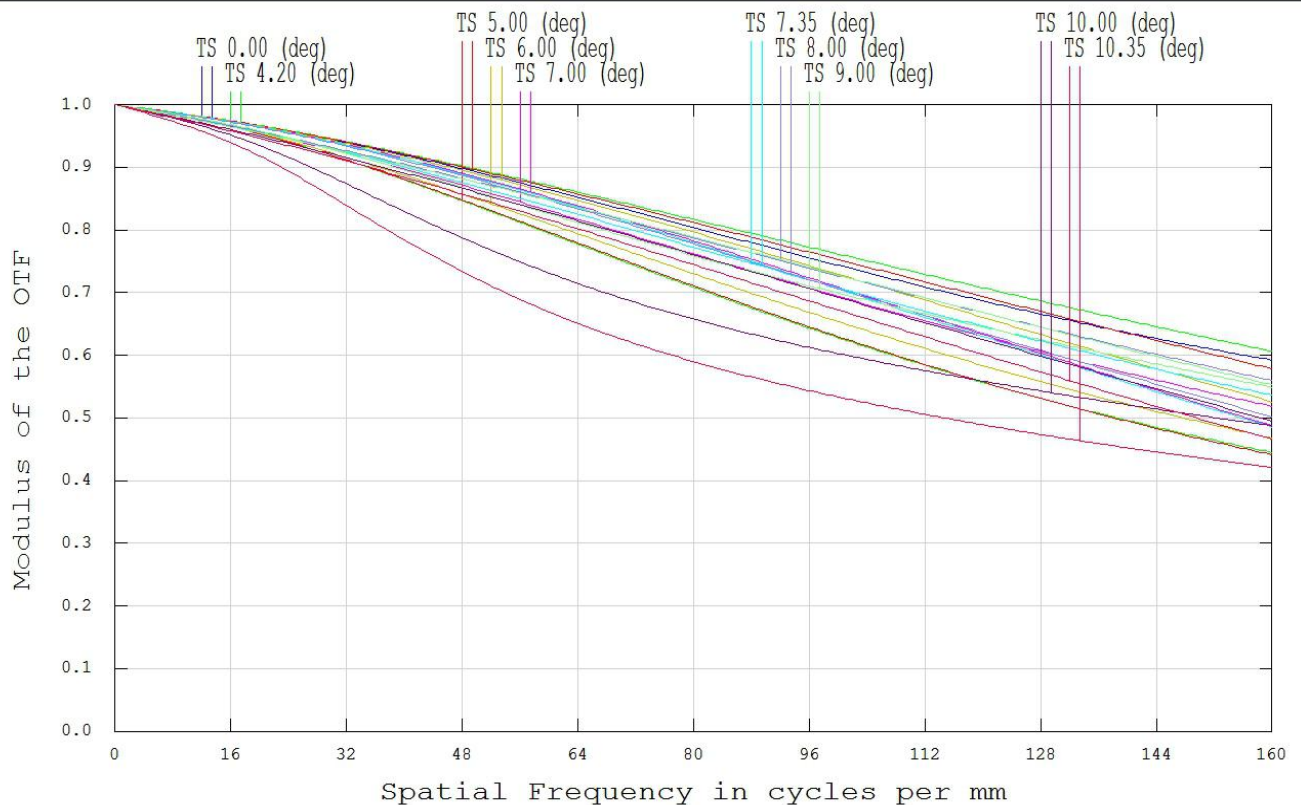
检测标准 (Test Standard)

型号 (Model) :		C-M50IR(12MP)-11F14-E	
检测项目 Test Items		检测内容 Test Content	
1	逆投影检测 Resolution Test	Test Range	Φ16 (Projector Distance: 3m , Teleconverter: 3m Thickness of cover glass: 1.5±0.2mm)
		Center≥	160 lp/mm
		Φ12≥	125 lp/mm
		Φ16≥	100 lp/mm
		Image standard	The image should be clear.
环境 Environment		25±2℃, ≤1 lux Dark room	

MTF Curve of IMX304

C-M50IR(12MP)-11F14-E

2



Polychromatic Diffraction MTF



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±3)°C放置1.5小时,(70±3)°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±3)°C for 1.5 hours and in (70±3)°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±3)°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±3)°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(±0.1米)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±0.1m) 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.

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 with pearl wool, desiccant and instructions.
3. The unit will be packaged in a corrugated box.
4. Seal the corrugated box with tape and mark the surface.

