

EVETAR®

Sharper eyes for imaging

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Sharper eyes for imaging

成为受人尊敬的世界一流光学解决方案供应商



光学解决方案供应商

Professional Optical Solution Provider

研发实力 R&D Ability

自成立以来，公司自主研发设计了超过3000种不同应用领域的光学镜头，是全球镜头厂商中品种规划最为齐全的厂商之一，产品包括可见光以及红外全波段镜头，可应用于安防、红外热成像、自动驾驶、无人机、机器视觉、3D传感、激光雷达、生命科学、动漫影像、智慧城市、视讯会议、物联网以及运动相机等领域。公司始终秉持技术创新，现已有超过350项发明及实用新型专利，公司获得了“国家企业技术中心”、“国家专精特新<小巨人>”、“高新技术企业”等荣誉称号。

With strong R&D ability, advanced production equipment and strict QC system, we has independently designed and launched more than 3,000 optical lenses, which include visible light and infrared full-wave band lenses and can be used in many applications, including Security Surveillance, Infrared Thermal Imaging, Autonomous Driving, UAV, Machine Vision, 3D Sensing, Lidar, Life Science, Motion Capture, ITS, Video Conferencing, Smart City, Action Cameras etc. We have always adhered to technological innovation and obtained more than 350 invention and utility model patents, and have also won honorary titles such as "National Enterprise Technology Center", "National SRDI (Specialized, Refinement, Differential, Innovation) Enterprise", "High-tech Enterprise" and so on.

定制化服务与技术支持 Customized and Technical Service

作为一家专业的光学解决方案供应商和光学镜头制造商，我们致力于为客户提供具有良好性价比的产品和差异化服务；从最初的产品研发设计，到最后的量产阶段，我们始终坚持为客户提供最高效、最全面的技术支持。

As an innovative designer and dedicated manufacturer, we keep providing cost-effective and time-effective optical solutions with technical support to our customers in all aspects from design stage to finished products.

公司概况 Company Profile

厦门力鼎光电股份有限公司成立于2002年，是一家行业领先的光学镜头研发和制造商，致力于为客户提供完整的光学解决方案。公司总部坐落于美丽的海上花园城市厦门，产品远销海外。公司引进了一系列国际先进的高精尖仪器设备用于研发、测试和生产，配备高度自动化的生产车间，严格按ISO9001、ISO14001、ISOHSAS18001和IATF16949体系进行管理。

Xiamen Leading Optics Co.,Ltd.is one of the leading designers and manufacturers of camera lenses and keeping providing innovative optical solutions and products to the market. Being stable in huge quantity supplying, Xiamen Leading Optics Co.Ltd.implements ISO9000,ISO14001,OHSAS18001,IATF16949 quality management systems and equips with advance production facilities, with an area of 30,000 square meters and more than 1000 employees in headquarter.



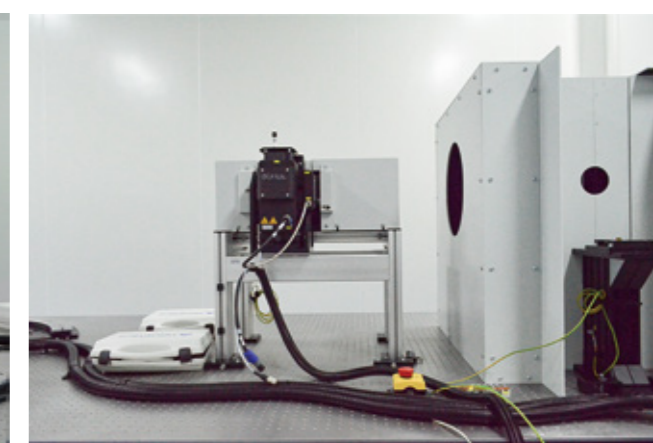
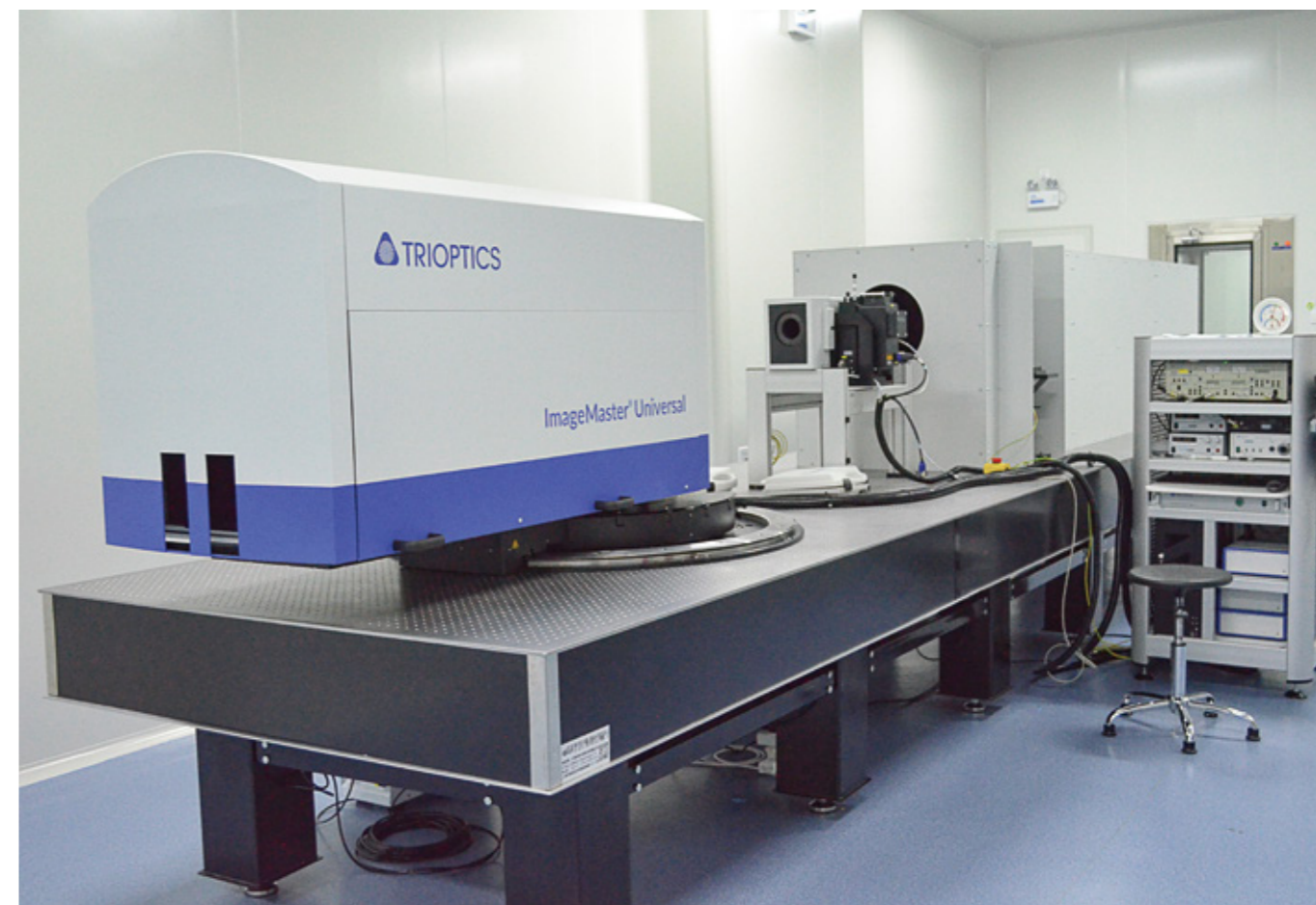
发展历程 Milestone

To be respectable first-class
optical solution provider

- 2022** 成立红外事业部，投资亿元于专业生产设备及检测设备
Established Infrared Optical BU in 2022, invested more than 20 millions on precised production and test facilities for thermal optics.
- 2021** 建立海沧南区工厂，增资扩产生产车载类与消费类光学镜头基地
Established Haicang south area factory, increase capital and production to produce vehicle mounted and consumer optical lens bases
- 2020** 成立厦门力鼎车载光学技术有限公司
Xiamen Leading Automotive Optech Co., Ltd.
- 2020** 上交所主板上市（股票代码605118）
EVETAR IPO
- 2019** 建立千级无尘车间
Class 1000 dust-free workshop available
- 2018** 建立江西上饶分公司，扩大光学冷加工生产基地
公司完成股份制改制，更名为厦门力鼎光电股份有限公司
Established subsidiary in Shangrao, Jiangxi
Completed the shareholding system reform
- 2015** 导入全自动组装生产线
Introduced fully integrated automated assembly line
- 2011** 获得ISO9001-2008、TS16949-2009、ISO14001-2004、OHSAS18001-2007、IATF16949-2016等体系认证
Acquired certification of ISO9001-2008、TS16949-2009、ISO14001-2004、OHSAS18001-2007、IATF16949-2016
- 2010** 投资非球面技术并成立Freeform分公司
Invested in aspherical Tech field and set up subsidiary:
Xiamen Freeform Optical Technology Co., Ltd
- 2002** 厦门力鼎光电技术有限公司在厦门成立
EVETAR Founded in Xiamen

精密设备 Precision Instruments

超精密测试设备 Ultra-Precision Test Equipments



德国全欧光学传递函数测量仪
TRIOPTICS ImageMaster Universal

精密设备 Precision Instruments

超精密测试设备 Ultra-Precision Test Equipments



泰勒霍普森接触式表面轮廓仪
Taylor-hobson
Contact surface profilometer



泰勒霍普森非接触式3D表面轮廓仪
Taylor-hobson
Non contact 3D surface profilometer



蔡司三坐标测量仪
ZEISS CONTURA
Three-coordinate measuring instrument



德国全欧多光谱中心偏差测量仪
TRIOPTICS Opticentric 300 IR Dual



乾耀激光干涉仪
SHINEOPTICS Laser interferometer



美国铂金红外光谱仪
PE Spectrum

超精密生产设备 Ultra-Precision Production Equipments



阿美特克单点金刚石车床(两轴)
AMETEK Single point diamond lathe



阿美特克单点金刚石车床(三轴)
AMETEK Single point diamond lathe



一键式全自动类金刚石硬碳膜镀膜机
One button automatic diamond like carbon film coater

精密设备 Precision Instruments

超精密生产设备 Ultra-Precision Production Equipments



光学真空镀膜机
Optical vacuum coating



大口径研磨机
Large-bore grinder



中小口径研磨机
Medium and small diameter grinder

信赖性测试设备 Reliability Test Equipments



步入式高低温湿热实验室
Walk-in temperature resistance test



温、湿、振三综合试验箱
Humidity, temperature and vibration comprehensive environment test



防尘试验箱
Dust resistance test



IPX9K高压防水试验箱
IPX9K waterproof test



全自动冲击试验台
Mechanical shock test



微机控制电子万能试验机
Tensile testing

应用领域 Application Area

一. 安防领域



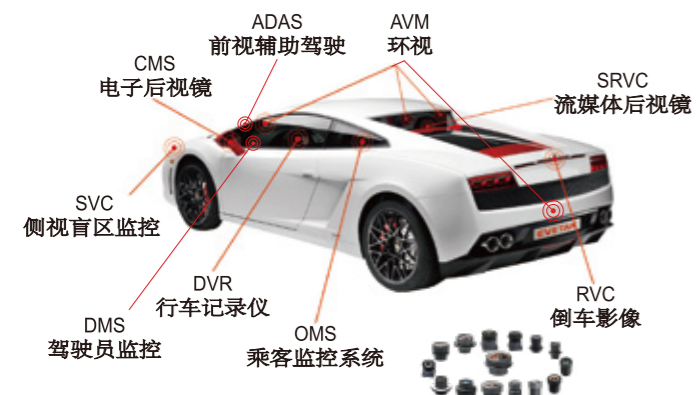
二. 专业消费类



三. 机器视觉



四. 车载电子



五. 红外热成像



01 C/CS接口系列 C/CS interface series

- 0101 C/CS接口变焦系列
- 0102 ITS道路监控系列

02 电动系列 Electric series

- 0201 MFZ D14接口系列
- 0202 ZOOM Lens系列

03 定焦系列 Fixed-focus

- 0301 大光圈系列
- 0302 低畸变镜头
- 0303 定焦广角镜头
- 0304 全景鱼镜头

04 细分领域 Niche

- 0401 可视门铃
- 0402 记录仪
- 0403 视讯会议
- 0404 扫码系列

05 热卖系列 Bestselling

- 0501 E5369
- 0502 E5430A
- 0503 E3398 8K

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Fixed-focus

Niche

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0101 C/CS接口变焦系列

C/CS interface zoom series

- 高分辨设计
- 日夜共焦
- 尺寸精巧
- 大通光
- 可支持电动变焦
- High resolution design
- On the night of confocal
- Size is exquisite
- Chase the light
- It can support electric doubling



型号 Model NO.	靶面尺寸 Image Circle	焦距 Focal length	光圈 F#	光圈类型 Iris Type	视场角 FOV(D*H*V)	接口 Moun	像素 Resolution
E5597	1/1.2"	12.7-40mm	F1.25	P-Iris	58.7°*50.8°*28.3°	C	8MP
E5369	1/1.7"	10-40mm	F1.3	Manual-Iris Auto-Iris P-Iris	52.7°*42°*31.3°	C	12MP
E5260	1/1.7"	30-120mm	F2.2	Auto-Iris	16.1°*14°*7.8°	C	12MP
E5500	1/1.8"	12.5-38mm	F2.0	P-Iris	41°*35.6°*19.9°	CS/D19	8MP
E5560	1/1.8"	8-32mm	F1.9	Manual-Iris	65.2°*55.7°*30.2°	CS	8MP
E5259	1/1.8"	12-40mm	F2.2	Manual-Iris Auto-Iris	43.3°*34°*25°	CS/D19	4MP
E5228	1/1.7"	4.5-10mm	F1.6	Auto-Iris P-Iris	134°*100°*72°	C/D19	6MP
E5229	1/1.7"	4.4-10mm	F1.2	Manual-Iris Auto-Iris P-Iris	150°*104°*74°	C/D19	2MP
E5430	1/2.8"	6-42mm	F2.3	Manual-Iris	62.5°*53°*29°	CS	2MP
E5127	1/3"	2.4-6mm	F1.6	Manual-Iris Auto-Iris	151°*112°*80.7°	CS/M12	2MP
E5299	1/2.8"	2.8-6mm	F2.2	Fixed	126°*107°*57°	/	2MP

0102 ITS道路监控系列

ITS Road monitoring series



- 大靶面
- 高分辨率
- 大通光
- 支持-40℃~+80℃



- The target surface
- High resolution
- Chase the light
- Support - 40 °C ~ + 80 °C

型号 Model NO.	靶面尺寸 Image Circle	焦距 Focal length	光圈 F#	光圈类型 Iris Type	视场角 FOV(D*H*V)	接口 Moun	像素 Resolution
3410A	1/1.8"	8.5mm	F1.4	Manual-Iris	56°*46°*35.4°	C	5MP
E3420A	1.1"	12mm	F1.4	Manual-Iris	68.6°*62°*34.4°	C	12MP
E3433A	1.1"	16mm	F1.0	Manual-Iris	60°*50°*35°	C	12MP
E3423A	1.1"	25mm	F1.4	Manual-Iris	36.2°*32.1°*17.2°	C	12MP
E3424A	1.1"	35mm	F1.4	Manual-Iris	25.8°*22.9°*12.2°	C	12MP
E3425A	1.1"	50mm	F1.5	Manual-Iris	18.5°*16.3°*8.6°	C	12MP
3398A	4/3"	12mm	F2.0	Manual-Iris MFZ+P-iris	101.3°*81.1°*60.2°	C	8K
3257A	4/3"	35mm	F2.0	MFZ+Motor-Iris	36°*29°*22°	C	12MP
E3385A	1"	75mm	F2.8	MFZ+Motor-Iris	12.1°*9.7°*7.3°	C	10MP
3357A	4/3"	100mm	F2.8	MFZ+Motor-Iris	12.3°*10°*7.5°	C	12MP

0201 MFZ Lens系列

MFZ Lens series

- 高分辨率
- 日夜共焦
- 蓝紫边控制
- High resolution
- On the night of confocal
- Blue and purple edge control



型号 Model NO.	靶面尺寸 Image Circle	焦距 Focal length	光圈 F#	光圈类型 Iris Type	视场角 FOV(D*H*V)	接口 Moun	像素 Resolution
E5522	1/2.8"	3.3-11mm	F1.6	Manual-Iris Fixed-Iris P-Iris	129°*106°*55.2°	D14	2MP~8MP
E5206	1/2.8"	2.8-10mm	F1.6	Manual-Iris Fixed-Iris P-Iris	130°*97°*70°	D14	4MP
E5281	1/2.8"	3-9mm	F1.4	DC-Iris P-Iris	136°*111°*57°	D14	4MP
E5405	1/2.8"	3-9mm	F1.6	Auto-Iris	152°*106°*75°	D14	5MP
E5436	1/1.8"	4.5-10mm	F1.3	P-iris	144.4°*113.8°*57.3°	D19	4MP
E5531	1/1.8"	4.5-10mm	F1.6	P-iris	142°*112.4°*56.6°	D19	4MP

0202 ZOOM Lens系列

ZOOM Lens series

- 高分辨
- 日夜共焦
- 尺寸精巧
- High resolution
- On the night of confocal
- Size is exquisite



型号 Model NO.	靶面尺寸 Image Circle	焦距 Focal length	光圈 F#	光圈类型 Iris Type	视场角 FOV(D*H*V)	接口 Moun	像素 Resolution
E5350	1/2.8"	3-9mm	F1.6	Auto-Iris+ICR	153°*107°*75.8°	46.59	5M
E5374	1/2.8"	3.14-7.98mm	F1.9	Fixed+ICR	144°*103.7°*74°	32.48	5M
E5494	1/2.8"	3-9mm	F1.55	P-iris+ICR	146°*116°*60°	50.38	4K
E5539	1/2.8"	3-9mm	F1.6	P-iris+ICR	147°*118°*61°	50.3	4K
E5598	1/2.8"	3.3-10.2mm	F1.6	P-iris+ICR	129°*106°*55°	50.04	2M-4K
E5534A	1/2.8"	3.5-9mm	F2.5	Fixed	93°*83°*51°	46.28	2M-4K

Vari-Focal

Fixed-focus

Niche

Bestselling

On the back

Vari-Focal

Fixed-focus

Niche

Bestselling

On the back

0301 定焦大光圈系列

Fixed focus large aperture series

- 黑光全彩
- 日夜共焦大光圈
- 结构精巧
- A black color
- Day and night confocal wide aperture
- Structure compact

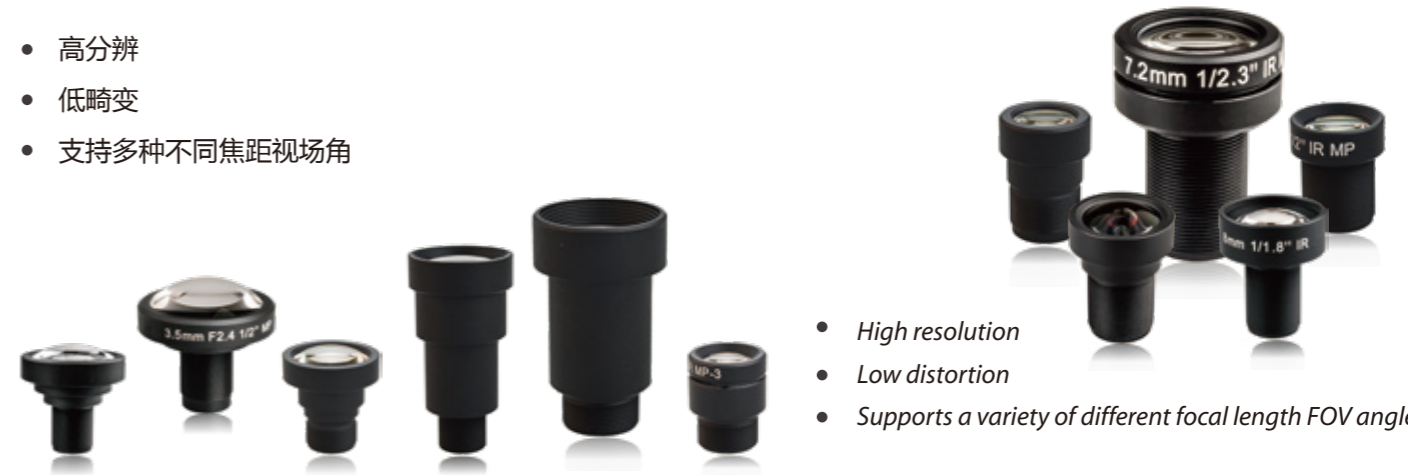


型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角			光圈 F#	光学总长 TTL(mm)*	接口 DFOV
			VFOV	HFOV	DFOV			
E3588	1/2.7"	4	47	88	105	F1.0	34.78	M16*0.5
E3365	1/2.5"	2.54	97.3	131	166	1.4	33	M12X0.5
E3585	1/2.7"	3.2	57.8	111	137	1.6	22.2	M12X0.5
E3587	1/2.7"	3.9	48.2	90.6	108.2	1.6	22.2	M12X0.5
E3502	1/2.8"	11.9	15.1	26.6	30.4	1.6	21.61	M12X0.5
E3517	1/2.7"	2.49	76	144	178	1.7	17.4	M12X0.5
E3513	1/2.7"	2.6	87	118	157	1.7	17.17	M12X0.5

0302 定焦低畸变镜头系列

Prime focus low distortion lens series

- 高分辨
- 低畸变
- 支持多种不同焦距视场角



- High resolution
- Low distortion
- Supports a variety of different focal length FOV angles

型号 Model NO.	靶面尺寸 Image Circle	焦距 Focal length	光圈 F#	视场角			光学总长 TTL(mm)*	接口 DFOV	畸变 Optical Distortion
				VFOV	HFOV	DFOV			
E3189	1/2"	3.5	2.4	68	84.2	97	34.91	M12X0.5	-2.70%
E3348	1/1.8"	4.5	2.2	58	70	84	36.78	M12X0.5	-4%
E3499	1/1.8"	5.8	2.2	42	68	76	30.02	M12X0.5	-2.40%
E3388	1/1.8"	7.84	2.0/2.6	31	53	60	34.23	M12X0.5	-2.90%
E3562	1/1.8"	12	2	20.5	36	40.6	26.04	M12X0.5	0.2%
E3401	1/1.8"	16.3	1.83	16.8	22.3	27.8	23.89	M12X0.5	-0.72%
E3137	1/1.8"	25	2.4	11	14	18	25	M12X0.5	-3.30%
E3482	1/1.7"	35	2.8	9.3	12.4	15.5	38.34	M12X0.5	-0.10%
E3463	1/1.7"	50	2.8	6.5	8.7	10.9	55.22	M12X0.5	-0.10%
E3297	1/2.3"	2.7	2.3	80	97	112	27.32	M12X0.5	6.60%
E3413	1/2.3"	5.4	2.8	39	65	72	24.53	M12X0.5	-1.60%
E3183	1/2.3"	7.2	2.4	36.2	47.3	57.4	31.6	M12X0.5	-1%

0303 定焦广角镜头系列

Fixed focus wide Angle lens series

- 支持多种不同靶面
 - 支持多种不同焦距
 - 超广角
 - 结构精巧
- Support a variety of different target planes
 - Support a variety of different focal lengths
 - Ultra wide Angle
 - Structure compact



型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	光圈 F#	视场角			光学总长 TTL(mm)*	接口 DFOV
				VFOV	HFOV	DFOV		
E3317	1/1.7"	3.98	2.8	70.5	88.2	108	34.23	M14
E3336	1/1.8"	3.1	1.8	80.8	151	181	27.8	M12X0.5
E3390	1/1.8"	4	2.2	64	125	160	26	M12X0.5
E3400	1/2.5"	2.8	2.2	90	124	160	24.26	M12X0.5
E3098	1/2.5"	3.5	1.8	62.2	78	89.6	27.11	M12X0.5
E3337	1/2.5"	3.76	2.4	54.5	100.2	117.5	22.76	M12X0.5
E3403	1/2.5"	5.89	1.88	34.9	62.3	71.6	20.36	M12X0.5
E3380	1/2.5"	6.16	1.88	41.3	54	69	20	M12X0.5

型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	光圈 FOV	视场角			光学总长 TTL(mm)*	接口 Mount
				VFOV	HFOV	DFOV		
E3375B	1/2.8"	2.15	2.3	73	113	124	16.7	M12X0.5
E3467	1/2.7"	2.3	2.1	79.8	144.2	167.9	15	M12X0.5
E3483	1/2.7"	2.3	2.2	81.6	158	180	19.91	M12X0.5
E3255A	1/2.8"	2.3	2.2	97	132	174	24.7	M12X0.5
E3435B	1/2.8"	2.39	2.0	76.4	136	157	25.43	M12X0.5
E3124	1/3"	f2.4	2	137	109	81	18.15	M12X0.5
E3376	1/2.7"	2.4	3.2	78.5	98.7	113.3	20.9	M12X0.5
E3346	1/3"	2.53	2.0	67.2	130.3	160	22	M12X0.5
E3412A	1/2.9"	2.66	2.3	160	127.3	67	16.93	M12X0.5
E3273	1/2.7"	2.7	2.2	89	124	180	15	M12/M8
E3292	1/2.8"	2.8	2.0	80	110	140	21.47	M12X0.5
E3457	1/2.7"	2.9	2.0	61	111	128	22.48	M12X0.5
E3501	1/2.8"	3.67	2.4	47	76.1	84.1	27.15	M12X0.5
E3155	1/2.8"	3.7	2.5	132	88.5	62	14.05	M12X0.5
E3275	1/2.7"	3.7	2.9	122	85	60	14.9	M12X0.5
E3536	1/2.7"	3.81	2.1	46.2	85.5	100.6	24.24	M12X0.5
E3399	1/2.7"	6	1.9	72	54.5	40	23	M12X0.5
E3147	1/2.7"	8	1.8	52.5	40.8	30.1	22.7	M12/CS
E3331	1/4"	1.93	2.0	150.5	124.8	65.7	19.04	M12X0.5
E3308	1/4"	1.93	2.4	145	117	81	14.39	M12X0.5
E3326	1/4"	2.17	2.0	130	109.6	58.4	21.61	M12X0.5

0304 鱼眼全景镜头系列

Fisheye panoramic lens series

- 安防全景，日夜共焦
- 多种拼接方案
- 适配不同版面的sensor
- 尺寸精巧



- Security panorama, confocal day and night
- Multiple splicing schemes
- sensor for different panels
- Size is exquisite



Image Circle vs. Sensor Format



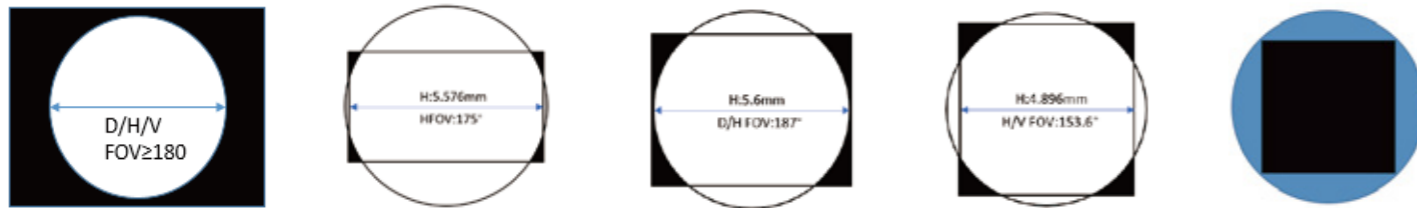
型号 Modle NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV	通光 F#	光学总长 TTL (mm)	接口 Mount	畸变 F-theta Distortion	像素 Resolution
E3157	φ2.9	1.27	185	2.1	16.67	M12X0.5	1-26.50%	1M
E3285	φ2.9	0.9	200	2.0	10	M12x0.5	-7.00%	4MP
E3330	φ3	0.83	230	2.3	29.8	M12x0.5	-9.70%	4K
E3318	φ3.28	0.96	220	2.2	13.08	M12x0.5	-12%	4K
E3171	φ3.2	1.19	180	2.0	35.26	M12x0.5	-5%	5M
E3247	φ3.5	1.05	200	2.6	24.5	M12x0.5	-7.71%	4K
E3475	φ3.6	1.22	180	2	23.34	M12X0.15	-5.50%	5MP

型号 Modle NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV	通光 F#	光学总长 TTL (mm)	接口 Mount	畸变 F-theta Distortion	像素 Resolution
E3272	φ3.93	1.25	190	2.0	11.8	M12x0.5	-6%	5M
E3437	φ4	1.41	180	2.0	27.49	M12x0.5	-9.70%	12M
E7393	φ4	0.95	200	2.0	12.89	φ9/11/M12	18%	2M
E3239	φ4.05	1.4	180	2.3	11.8	M12x0.5	-8%	2M
E3487	φ4.41	1.18	180	2.2	29.75	M12x0.5	19.90%	4K
E3267	φ4.42	1.12	250	2.4	30.09	M12x0.5	9.20%	12M
E3378	φ4.5	1.6	180	2.0	27.8	M12x0.5	-10%	12M
E3338	φ4.53	1.5	190	2.8	18.01	M12x0.5	-9.80%	12M
E3232	φ4.6	1.45	190	2.4	28.39	M12x0.5	-4.76%	4K
E3351	φ4.6	1.4	182	1.4	60.6	CS	-1%	5M
E3461	φ4.65	1.22	182	2.2	29.8	M12x0.5	20.50%	4K
E3279	φ5.4	1.29	190	2.4	29.82	M12x0.5	25.50%	12M
E3510	φ5.6	1.93	187	2.2	12.19	M12x0.5	-11.60%	4MP
E3198	φ5.6	1.98	180	2.8	29.11	M12x0.5	-14.80%	12M
E3286	φ6.2	2.2	195	2.3	18.91	M12x0.5	-16.80%	4M
E3307	φ6.2	2.2	190	2.2	16.79	M10x0.5	-13%	12M
E3372	φ6.6	2	195	2.3	32.58	M12x0.5	-4%	4K
E3153	φ7.2	1.4	185	1.4	81.52	CS	-3.40%	4K
E3402	φ7.3	2.3	190	2.2	31.51	M12x0.5	-2.30%	4k
E3417	φ7.6	f2.53	190	F2.4	30.21	M12x0.5	-9.50%	4K
E3336	φ8.8	3.1	181	1.8	27.8	M12x0.5	-10%	4K

0401 可视门铃系列

Video doorbell series

- 高分辨设计
- 日夜共焦
- 尺寸精巧
- High resolution design
- On the night of confocal
- Size is exquisite



型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV	通光 F#	光学总长 TTL (mm)	接口 Moun	畸变 F-theta Distortion
E3273	1/2.7"	2.7	124	2.2	15	M12/M8	-21.0%
E3239	φ4.05mm	1.4	180	2.3	11.55	M12x0.5	-8.0%
E3272	φ3.93mm	1.25	190	2.0	11.8	M12x0.5	-6.0%
E3510	φ5.6mm	1.93	187	2.2	12.26	M12x0.5	-11.6%
E3288	φ5.6mm	1.93	187	2.2	11.95	M12x0.5	-9.0%
E3393	φ4mm	0.95	200	2.0	12.89	M12x0.5	18.2%
E3668	φ4.3mm				12	M12x0.5	
E3467	φ7.4mm	2.3	144	2.1	15	M12x0.5	-3.5%

0402 记录仪系列

Recorder series

- 短TTL
- 超广角设计
- 低畸变
- Short TTL
- Super wide Angle design
- Low distortion



型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角			光圈 F#	光学总长 TTL(mm)*	接口 DFOV
			VFOV	HFOV	DFOV			
E3375	1/2.8"	2.15	73	113	124	2.3	16.7	M12X0.5
E3517	1/2.7"	2.49	1.7	76	144	178	17.4	M12X0.5
E3513	1/2.7"	2.6	87	118	157	1.78	17.17	M12X0.5
E3412	1/2.9"	2.66	160	127.3	67	2.3	16.93	M12X0.5
E3273	1/2.7"	2.7	89	124	180	2.2	15	M12/M8
E3440	1/2.7"	2.7	67	124	146.5	2.0	18.17	M12X0.5
E7393	φ4	0.95	200	200	200	2.0	12.89	M12x0.5
E3510	φ5.6	1.93	185	185	185	2.2	12.19	M12x0.5

Vari-Focal

Fixed-focus

Niche

Bestselling

On the back

Vari-Focal

Fixed-focus

Niche

Bestselling

On the back

0403 视讯会议系列

Video conference series

- 一体机镜头
- 全景单目
- 超广角低畸变
- 支持多种认证体系
- All in one lens
- Panoramic monocular
- Ultra wide Angle low distortion
- Support for multiple certification systems



型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV	通光 F#	光学总长 TTL (mm)	接口 Mount	畸变 F-theta Distortion	像素 Resolution
E3471	1/2.8"	1.98	110.5°	F2.4	24.2	M12*0.5	-4.50%	4K
E3655	1/2.8"	3.46	78.3°	F2.1	15.3	M12*0.5	-3%	4K
E3146	1/2.3"	5.4	60°	F2.5	24.53	M12*0.5	-2%	4K
E3297	1/2.3"	2.7	97°	F2.3	27.32	M12*0.5	-6.60%	4K
E3388	1/1.8"	7.8	50°	F2.6	34.5	M12*0.5	-2.90%	4K
E3527	1/2"	8.7	41°	F2.0	34.31	M12*0.5	-2.80%	4K
E3670	1/1.8"	4.81	77.7°	F1.9	26.4	M12*0.5	-2%	4K
E3330	fai3mm	0.83	230°	F2.3	29.77	M12*0.5	f-theta -9.7%	4K
E3279	fai5.4mm	1.29	190°	F2.4	29.82	M12*0.5	25.50%	4K
E5534	1/2.8"	3.5-9	83°	F2.5	46.28	/	-2.50%	4K

0404 扫码系列

Sweep code series

- 可搭配液体镜头
- 可搭配T Lens
- 单镜头成像
- 大景深
- Can match liquid lens
- Available with T Lens
- Single lens imaging
- Large depth of field



型号 Model NO.	靶面尺寸 Image Circle	最近物距 MOD	焦距 (mm) Focallength	视场角			通光 F#	光学总长 TTL(mm)*	接口 DFOV	畸变 Optical Distortion
				VFOV	HFOV	DFOV				
E3250	1/2.5"	50mm	f5mm	48	62.5	75	F#5.0	18.6	M12X0.5	-6.70%
E3264	1/3"	50mm	f7.7mm	26.7	35.6	44.6	F#4.0	19.58	M12X0.5	-5.50%
E3230	1/3"	50mm	f9.0mm	21	28	34.4	F#6.0	14.85	M12X0.5	-1%
E3319	1/3"	50mm	f16mm	12.5	17	21	F#6.6	18.67	M12X0.5	-0.63%

05 热卖系列

Bestselling series

Vari-Focal




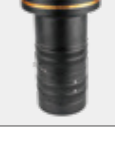

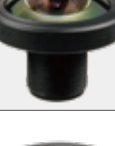



Fixed-focus

Niche

Bestselling

On the back

型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV(D*H*V)	通光 F#	光学总长 TTL (mm)	接口 Mount	畸变 F-theta Distortion	像素 Resolution	镜头图 Photo
E5369	1/1.7"	10-40mm	52.7°*42°*31.3°	F1.3	110	C	-5%	12MP	
E5430A	1/2.8"	6-42mm	62.5°*53°*29°	F2.3	64.73	CS	-13.30%	2MP	
E5522	1/2.8"	3.3-11mm	129°*106°*55.2°	F1.6	51.58	D14	-54.36%	2MP-4K	
E5251	1/2.8"	3-10mm	128°*100°*73.8°	F1.3	49.9	D14	TV-22%	5MP	
E3527	1/2"	8.7mm	50.7°*41.1°*31°	F2.0	34.31	M12	-2.80%	4K	
E3388	1/1.8"	7.8mm	60.8°*50.2°*38.4°	F2.6	34.5	M12	-0.03%	4K	
E3183	1/2.3"	7.2mm	57.4°*47.3°*36.2°	F2.4	31.6	M12	-1%	4K	
E3323	1/2.7"	3.2mm	120°*101.5°*55°	F2.0	22.92	M12	-28%	2MP	
E3471	1/2.8"	1.98mm	118.5°*110.5°*76.3°	F2.4	24.2	M12	0%	4K	

型号 Model NO.	靶面尺寸 Image Circle	焦距 (mm) Focal length	视场角 FOV(D*H*V)	通光 F#	光学总长 TTL (mm)	接口 Mount	畸变 F-theta Distortion	像素 Resolution	镜头图 Photo
E3410	1/1.8"	8.5mm	56°*46°*35.4°	F1.4	53.68	C	-1%	5MP	
E3423	1.1"	25mm	36°*32°*17°	F1.4	94.36	C	-1.65%	12MP	
E3425	1.1"	50mm	18.5°*16°*8.6°	F1.5	96.87	C	-1.50%	12MP	
E3398	4/3"	12.5mm	101.3°*81°*60.2°	F2.05	165.51	C	-28.20%	8K	
E3318	φ3.2	0.97mm	220°	F2.2	12.91	M12	f-theta-12%	4K	
E3247	φ3.5	1.08mm	200°	F2.4	24.41	M12	f-theta-7.72%	10MP	
E3272	φ3.93	1.25mm	190°	F2.0	11.8	M12	f-theta-6%	5MP	
E3197	4.1	1.58mm	180°	F2.8	29.8	M12	f-theta-18.2%	4MP	
E3373	5.38	1.28mm	185°	F2.4	29.71	M12	f-theta+30%	12MP	

Vari-Focal

Fixed-focus

Niche

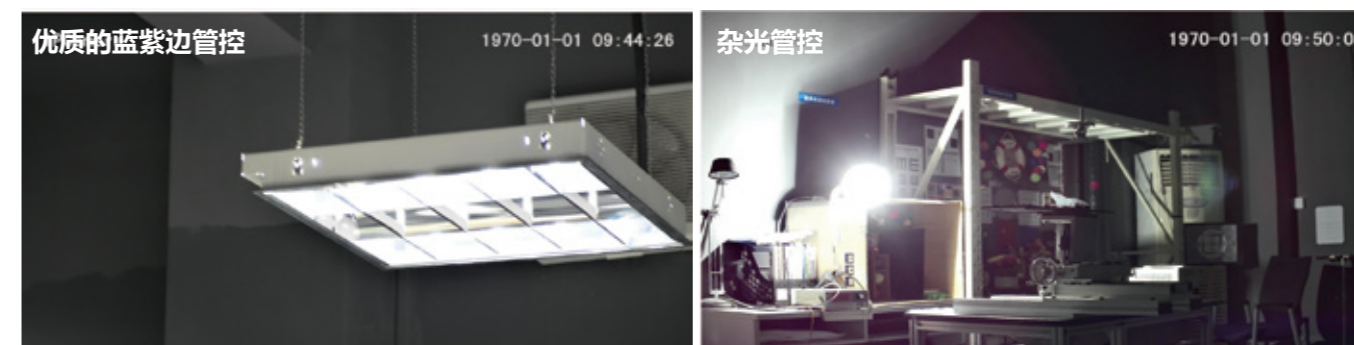
Bestselling

On the back



支持多种不同光圈

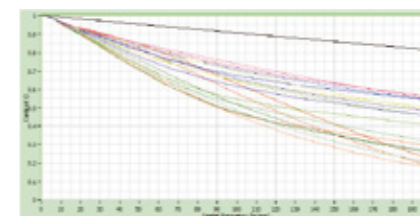
型号(Model)		技术规格(technical)	
E5369	1/1.7" f10-40mm F1.3 C接口变焦镜头	Image Size(inch)	1/1.7"
E5369A	4K 手动光圈, 手动变倍, 手动聚焦	Focal Length(mm)	10-40
E5369B	4K 自动光圈, 手动变焦, 手动聚焦	Aperture Ratio	1.3
E5369C-R1	4K P-IRIS, 电动变倍, 电动聚焦	Back Focal Length(mm)	8.17-9.34
S5369G	4K P-IRIS, 电动变倍, 电动聚焦, 塑料结构	Mount	C



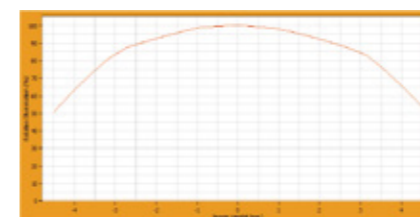
光学实测数据

短焦端 (Wide)

焦距	10.57mm
F值	1.32
红外离焦量	PE/BB 14um/15um
相高	φ9
角度@9	49.37°
TV畸变	-7.74
主光线入射角	4.9
相对照度	52.27%



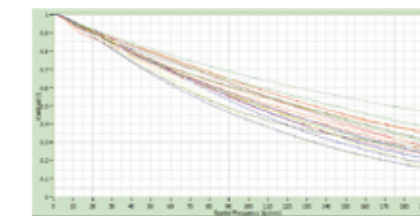
MTF(200lp/mm)



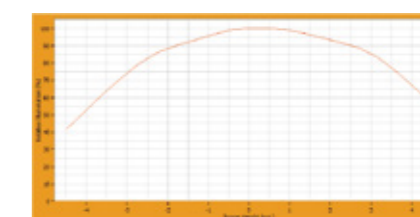
Relative Illumination

长焦端 (Tele)

焦距	38.26mm
F值	1.32
红外离焦量	PE/BB 32um/33um
相高	φ9
角度@9	13.31°
TV畸变	0.31
主光线入射角	5.05
相对照度	48.99%



MTF(200lp/mm)



Relative Illumination

产品基本描述

焦距10-40mm, 高分辨率, 恒定大通光, 手动光圈/自动光圈, 是一颗专门为人脸识别应用打造的镜头。

产品主要特征

- 像面大小: 1/1.7", 最大像面是9.6mm (支持: IMX185、IMX385、IMX178、IMX226、IMX334)
- 变焦镜头: f10-40mm
- 通光:F1.3, 恒定光圈[f10mm (F#1.3)-f40mm(F#1.3)]
- TV畸变: -5%W~0.19%T
- 分辨率高: 4K
- 手动光圈/自动光圈/P-Iris光圈

应用领域

- 人脸识别、智能交通、平安城市、智慧城市等

产品主要特性



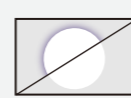
超高清晰度



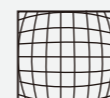
大通光



红外共焦



消紫边



低畸变



SPECIFICATION SHEET

Sensor Spec 传感器规格	1/2.8" IMX307 3.132x5.568, 6.46
Max Image Circle 最大像面	Ø6.7
EFL 有效焦距	6-42mm
FNo. F值	2.3
F.O.V. 视场角	IMX307
	D.对角 62.5°~9°
	H.水平 53°~7.5° V.垂直 29°~4°
Back Focal Length 后截距	8.07mm(in air)
Lens Effective Diameter 通光口径	Front 前面 Ø24.5mm
	Back 后面 Ø9.4mm
Lens construction 镜头组成	12-10
OP Distortion 光学畸变	-13.3%W~+0.2%T
Resolution 分辨率	For IMX307
Relative Illumination 相对照度	>40%(Wide&Tele)
Iris 光圈	Manual Iris
Max Chief Ray Angle 最大主光线入射角	4°
M.O.D 最近物距	1m
Working Distance 工作物距	∞
Mount 接口	1-32UNF (CS Mount)
TTL 光学总长	64.73mm (in air)
Dimension (ØxL) 外形尺寸	Ø46.2x53.71mm

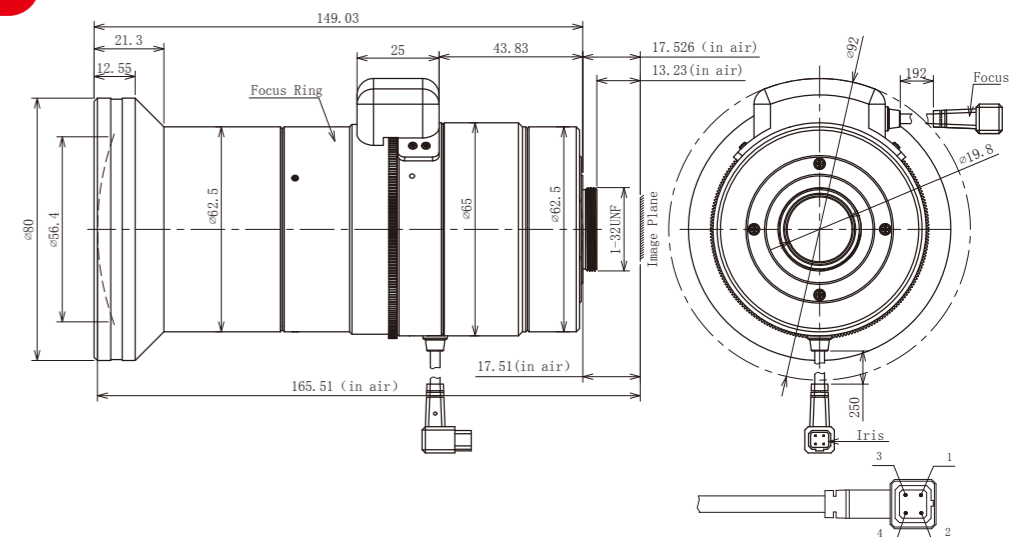
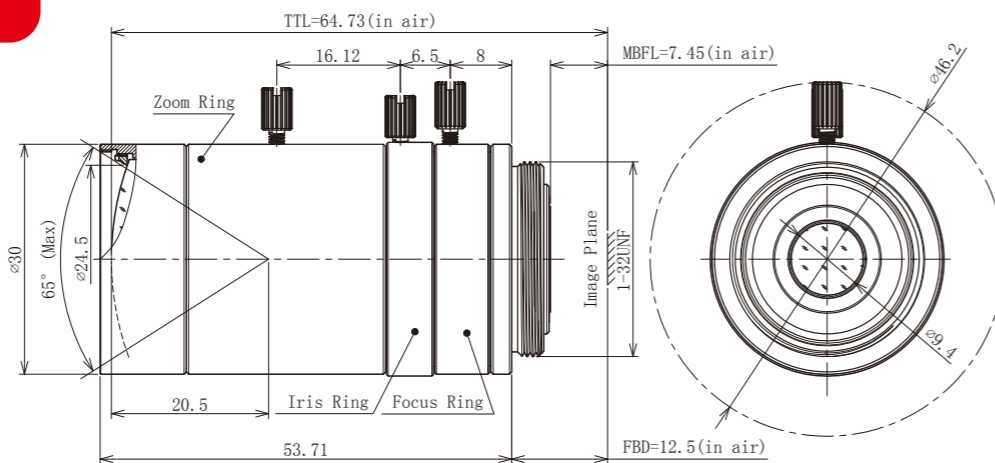
1/2.7" 7X变焦镜头 结构精巧

SPECIFICATION SHEET

Sensor Spec 传感器规格	4/3" CCD/CMOS 17.56x13.08, 21.9
Max Image Circle 最大像面	Ø22
EFL 有效焦距	12.5mm
FNo. F值	F2.05
F.O.V. 视场角	D.对角 101.3°
	H.水平 81.1°
	V.垂直 60.2°
Back Focal Length 后截距	17.51mm (in air)
Lens Effective Diameter 通光口径	Front 前面 Ø56.4mm
	Back 后面 Ø19.8mm
Lens construction 镜头组成	14-9
OP Distortion 光学畸变	<-28.2%
Resolution 分辨率	8K
Relative Illumination 相对照度	>65%
Iris 光圈	P- Iris
Max Chief Ray Angle 最大主光线入射角	17.5°
M.O.D 最近物距	2m
Working Distance 工作物距	INF
Mount 接口	1-32UNF (C Mount)
TTL 光学总长	165.51mm(in air)
Dimension (ØxL) 外形尺寸	Ø80x149.03xØ92



4/3" 8K f12.5mm P-Iris C接口



AI镜头的技术趋势

Technology trends for AI lenses



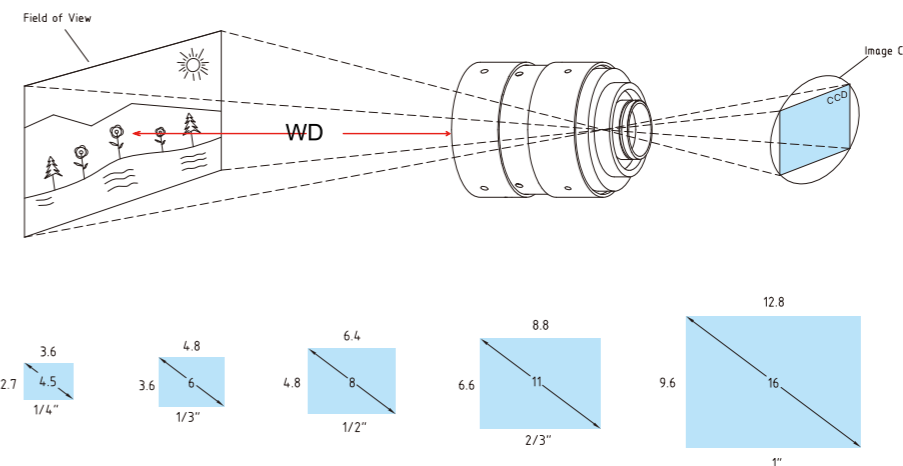
- 1) 高解像度: 1080P - 2K -- 5MP - 4K - 6K - 8K
High resolution: 1080P -- 2K -- 5MP -- 4K -- 6K -- 8K
- 2) 宽光谱: VIS、NIR、SWIR、MWIR、LWIR
Wide spectrum: VIS, NIR, SWIR, MWIR, LWIR
- 3) 大通光: F1.8、F1.4、F1.2、F1.0、F0.9
Chase light: F1.8, F1.4, F1.2, F1.0, F0.9
- 4) 超广角、低畸变、高照度
Ultra wide Angle, low distortion, high illumination
- 5) 高标准的镀膜要求
High standard coating requirements
- 6) 高标准的杂散光管控
High standard stray light control
- 7) 高一致性、可靠性, 无热化
High consistency, reliability, no heating
- 8) 非球面: 玻非和塑非
Aspheric surface: glass and plastic
- 9) 自动化与装调工艺
Automation and assembly and adjustment process
- 10) 高集成: ICS (MCU)、ZOOM BLOCK、AF
High integration: ICS (MCU), ZOOM BLOCK, AF

Terminology 常用术语

Image Sizes 像面尺寸

There are several types of imaging sensors with different image sizes for CCTV cameras, the aspect ratio of CCTV camera is normally 4:3 (H:V). The size of camera's imaging sensor affects the angle of view, with the smaller sensors creating narrower angles of view when used on the same lens. The format of the lens, however is not related to the angle of view, it merely needs to project an image which will cover the sensor, i.e., the same format of the camera or large. This also means that 1/3" cameras can use the entire range of lenses from 1/3" to 1", for example, a 1/3" 12mm lens gives the same angle of view as a 2/3" 12mm lens does. The latter combination also provides increased resolution and picture quality as only the centre of the lens is being used, where the optics can be ground more accurately.

闭路监控摄像机有多种不同尺寸规格的传感器，屏幕高宽比通常是4：3（水平宽度：垂直高度）。传感器的尺寸规格对视角有影响，使用相同的镜头在较小的传感器上的视角更窄。镜头的规格与视角无关，它仅仅需要使图像覆盖整个传感器，也就是说，同样大小或者更大规格的摄像机。这也表示，1/3" 的摄像机可以用1/3" - 1" 的所有镜头，例如，1/3" 12mm镜头与2/3" 12mm镜头的视角是一样的。后者的图像像素和成像质量提升，因为只取得镜头中心部分的图像，而这部分范围的图像通常更加锐利。



Focal Length 焦距

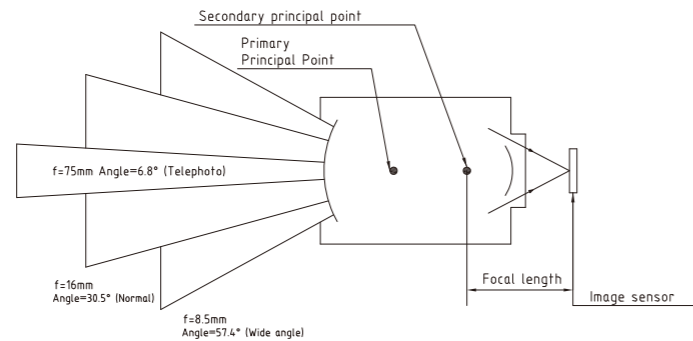
Rays from infinite distance objects are condensed internally in the lens at a common point on the optical axis. The point at which the image sensor of the CCTV camera is positioned, is called a focal point. By virtue of design, lenses have 2 principal points, a primary principal point & a secondary principal point, the distance between the secondary principal point and the focal point (image sensor) determines the focal length of the lens.

Terminology 常用术语

The focal length of a lens is measured in mm and directly relates to the angle of view that will be achieved. Short focal length provides wide angle of view and long focal length becomes telephoto, with narrow angle of view.

来自无穷远物距的光线在镜头内部汇聚在光轴上的一个共同的点上。闭路监控摄像机的传感器聚焦的那个点，叫做焦点。在光学设计中，镜头有2个主点，一个主要主点和一个次要主点，次要主点和焦点之间的距离决定了镜头的焦距。

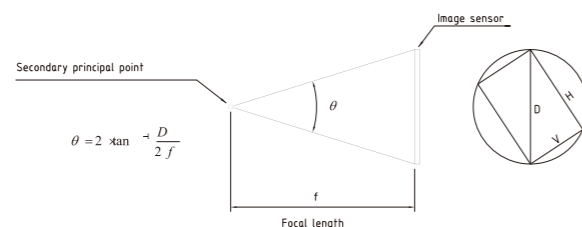
镜头的焦距是以毫米为单位来测量的，它与将要达到的视场角大小直接相关。焦距变短视场角变大，焦距变长，视场角变窄。



Angle of View 视场角

The angle formed by the 2 lines from the secondary principal point to the edges or corners of image sensor is called the angle of view. Theoretically, the focal length of a lens is fixed regardless of the image size of the CCTV camera. Conversely, the angle of view varies according to the change of image size. For a certain image size, the angle of view will increase when the focal length becomes shorter. The focal lengths in the catalog are nominal and the angles of view calculated by the formula referring to the focal lengths are approximate.

视场角是指镜头到图像传感器边缘连线的夹角。从理论上讲，在不考虑摄像机像面大小时，一个镜头的焦距是固定的，视场角则固定。但实际上视场角的大小也会随着相面尺寸的变化而变化。当相面尺寸大小固定时，如果焦距变短，视场角会相应的变大。目录中的焦距是额定焦距，因此根据公式算出来的视场角是估算值。



Terminology 常用术语

Aperture (F No.) 光圈

Aperture is an index for the amount of light that passes through a lens. The value of the aperture is represented by the F No., the smaller the number, the greater the amount of light, and the brighter the image generated by the lens. The F No. is inversely proportional to the entrance pupil diameter of the lens and directly proportional to the focal length. Its formula is as follows:

$$F \text{ No.} = f / D \text{ (f: focal length, D = Entrance pupil diameter)}$$

光圈是衡量镜头通光量的指数。光圈值由F值表示，F值越小，通光量越大，镜头所形成的图像越明亮。F值与镜头孔径成反比，与焦距成正比。比值公式如下：

$$F \text{ 值} = f / D \text{ (f: 焦距, D=镜头孔径)}$$

Auto Iris and Manual Iris 自动光圈与手动光圈

There are three types of operation for lens iris, that is, (1) DC drive auto iris; (2) Video drive auto iris and, (3) Manual iris. For DC drive type, the iris is controlled by the circuit inside the camera; for Video drive type, the iris is equipped with an amplifier inside and is operated by the Video signal and DC power supply from the camera; for Manual type, the iris is manually adjusted over the adjusting ring on the lens.

镜头大致分为直流驱动光圈，视频驱动光圈，手动光圈三种。直流驱动光圈是由镜头内部线路来控制的，视频驱动光圈内部有装一个放大器，是由视频信号及摄像机提供的直流电来控制的。手动光圈是通过由镜头外部调节环来手动调节实现光圈变化的。

M.O.D. 最近物距

The M.O.D. (minimum object distance) is the closest distance from the vertex of the front lens to the nearest object at which an image can be focused.

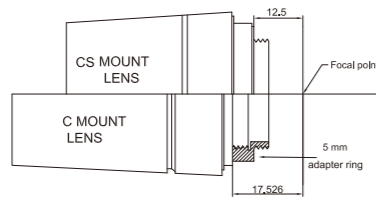
最近物距是指镜头最前端镜片中心点到最近的可以清晰成像的物体的距离。

Terminology 常用术语

CS and C Mount CS和C接口

The CS-mount lens has the flange back distance of 12.5mm. The C-mount lens has the flange distance of 17.5mm. The CS mount lens is only applicable to the CS mount camera, but the C mount lens is fit for both C mount and CS mount cameras as long as a 5mm Adapter Ring is used to match the CS mount camera.

CS接口的镜头后法兰距为12.5mm，C接口的后法兰距为17.5mm。CS接口的镜头只能匹配CS接口的摄像机，但是C接口的镜头除了可以匹配C接口的镜头外还可通过加一个5mm的C转CS接圈来匹配CS接口的摄像机。



	C Mount Lens	CS Mount Lens
C Mount Camera	○	×
CS Mount Camera	Needs 5mm adapter ring	○

Depth of Field 景深

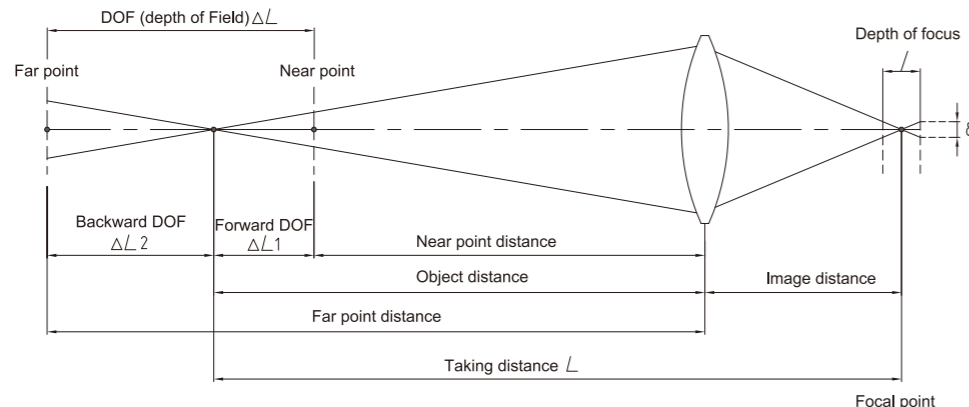
The depth of field refers to the area within the field of view which is in focus. A large depth of field means that a large percentage of the field of view is in focus. A small depth of field means only a small section of the field of view is in focus. The depth of field is of following properties.

- 1)The larger the F No. is, the wider the depth of field becomes.
- 2)The shorter the focal length is, the wider the depth of field becomes.
- 3)The longer the distance to the object is, the wider the depth of field becomes.
- 4)The backward depth of field is wider than the forward depth of field.

景深是指在摄影机镜头聚焦完成后，在焦点前后的范围内都能形成清晰的像，这一前一后的距离范围，便叫做景深。

光圈、镜头、及拍摄物的距离是影响景深的重要因素：

- 1.光圈越大景深越小，光圈越小景深越大。
- 2.镜头焦距越长景深越小、反之景深越大。
- 3.主体越近，景深越小，主体越远，景深越大。
- 4.近景深比远景深大。



Terminology 常用术语

Megapixel 百万像素

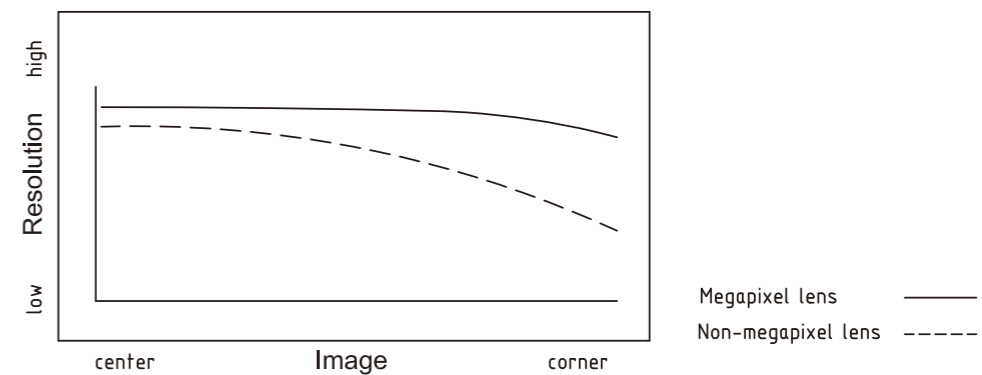
CCD and CMOS image sensors use a series of pixels arranged on a 2 dimensional grid. These pixels convert an optical image to an electronic signal. The number of pixels in an image usually defines the resolution, more pixels means higher resolutions. A megapixel is defined as one million pixels, while camera with a megapixel sensor is called a megapixel camera.

CCD和CMOS图像传感器利用的是按二维网格排列的像素。这些像素把光学图像转换成电子信号。一个图像上像素的多少通常决定了图像的分辨率,更多的像素意味着更高的分辨率。百万像素就是有一百万个像素。而百万像素摄像机就是使用百万像素传感器的摄像机。

Megapixel lens for megapixel camera 匹配百万像素摄像机的百万像素镜头

To achieve the full resolution of a megapixel camera, it is essential to use a high quality megapixel lens. Overall image quality is greatly affected by the quality of the optical image shot onto the image sensor. Megapixel lenses provide high contrast, brightness and sharpness across the entire image plane. Non-megapixel lenses will not fully display the resolution of megapixel sensor, especially in the corner area of the image.

为了使百万像素摄像机能够得到最好的表现那么使用一个高品质的百万像素的镜头将显得非常重要，因此光学图像的质量是影整体图像质量的一个关键因素。百万像素镜头可以为整个图像提供高对比度，锐度和明锐度。而非百万像素镜头就无法完全展现百万像素传感器的高分辨率，特别是在图片的边缘



Terminology 常用术语

Flange Back Distance, Back Focal Length, Mechanical Back Focal Length

后法兰距离, 后焦距, 机械后焦距

Flange back distance is the distance between the lens flange and the sensor focal plane.

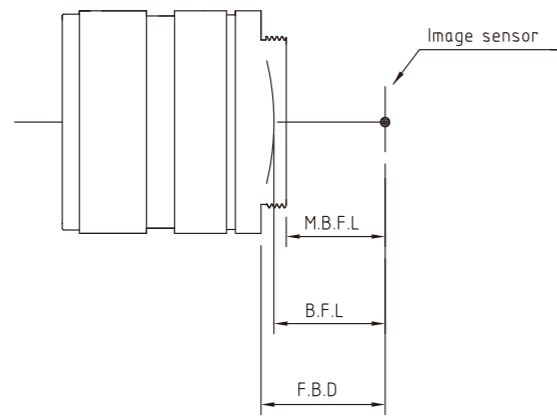
Back focal length is the distance between the vertex of the rear lens element and the sensor focal plane.

Mechanical Back Focal Length is the distance between the surface of the lens frame and the sensor focal plane.

后法兰距是指从镜头接口处到摄像机传感器之间的距离。

后焦距是指从镜头最后一片镜片中心点到摄像机传感器之间的距离。

机械后焦距是指镜头接口最前端到摄像机传感器之间的距离。

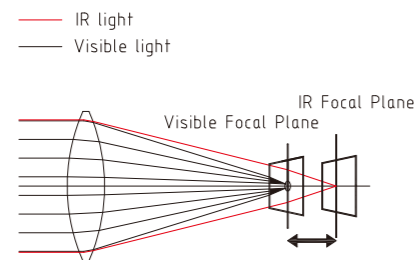


Non IR Lens vs IR Lens 非IR镜头与IR镜头的对比

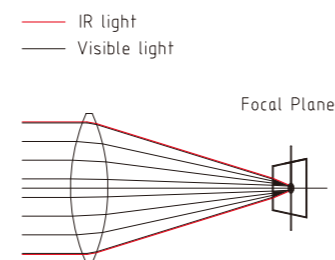
Day & Night cameras are normally used in near-infrared (NIR) or infrared (IR) at night. If we use a Non IR lens with a day & night camera, the image will be out of focus (shifting) at night. Our special optical designs with broad band co-focusing technology based on special glass material minimize light dispersion. As a result, refocusing is not required when the camera is used under NIR or IR. The special design makes the lens to deliver perfect focusing either under visible light or under IR illumination circumstances.

日夜两用摄像机一般用在夜间近红外或者红外环境。如果用不带IR矫正功能的镜头匹配日夜两用摄像机, 那么摄像机在夜间使用时将无法清晰聚焦。EVETAR镜头采用玻璃镜片辅以特殊的光学设计以及多层镀膜来减少光的折射以达到日夜共焦。这样一来, 摄像机在夜间使用的时候就不需要再重新聚焦。

Non IR Lens



IR Lens



Model Name Coding Rule 编码规则

