

ArduCam

UVC camera

M12 Lens Kit

Build your vision, Capture everyone's imagination



SKU:LK005

About us

ArduCAM is a startup company dedicated to open source hardware and software, designed and manufactured in China specifically for Arduino and Raspberry Pi camera solutions. We also offer customized turnkey design and manufacturing solution services for customers who want their products to be unique.



GUIDELINES

1

Choose a suitable lens holder as follows:

- a) Determine the lens holder height listed in the lens specifications for your selected lens. If you use a different lens holder height, you might not be able to focus the lens at all.
- b) Ensure that the lens holder matches the screw hole pitch of your camera board. Lens holders are available with 18mm and 20mm pitches.

2

If required, the thread gap between the lens and lens holder can be filled with damping grease or similar glue in order to fix the lens in position after focusing.

3

Specks of dust or tiny bubblers might be visible on the image while focusing the lens. These will disappear when the lens is in focus, and will not affect image quality.

4

When focusing or replacing a lens, do not screw the lens into the lens holder too deep, otherwise the lens might touch and damage the image sensor. Often, focusing a lens is performed while monitoring the image quality on a video screen. A blurry image will result if the lens is screwed in either too deep or too shallow from where it is in focus.

5

When changing the lens, please replace the lens and lens holder together if the lens is glued to the lens holder.

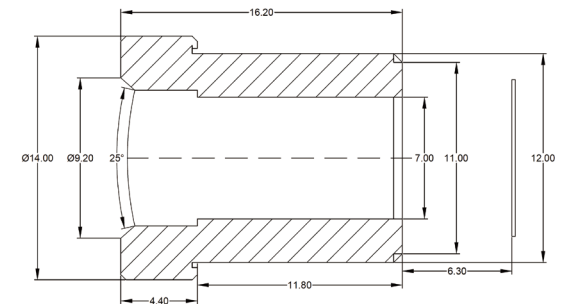
LENS PARAMETERS

SKU	LN001	LN065	LN002	LN003	LN011	LN012	LN013	LN005	LN055	LN007
Model No:	M2516ZH01	M2512ZH03	M2508ZH02	M2506ZH04	M2504ZH05S	M25360H06S	M27280M07S	M27210H08	M27195H15	M25170H12
Optical Format	1/2.5"	1/2.5"	1/2.5"	1/2.5"	1/2.5"	1/2.5"	1/2.7"	1/2.7"	1/2.7"	1/2.5"
EFL(mm)	16	12	8	6	4	3.6	2.8	2.1	1.95	1.7
35mm Equivalent Focal Length for 1/2.8" Cam	102	81	49.5	34	25.7	21.45	18	9.37	4.82	1.1
BFL(mm)	7.1	6.5	8.1	7.3	3.24	2.75	2.6	6.3	3.8	4.7
Construction	6G+IR	6G+IR	6G+IR	6G+IR	2G2P+IR	2G2P+IR	2G2P+IR	6G+IR	6G+IR	6G+IR
F/NO	2.0	2.0	2.0	2.0	2.8	3.0	2.8	2.0	2.0	2.0
FOV (D/H/V) on 1/2.7" Cam	25/22/12	31/27/15	48/42/25	64/57/34	80/72/45	90/82/52	103/95/63	136/130/101	158/155/136	180/180/180
FOV (D/H/V) on 1/2.8" Cam	23/20/11	29/25/14	45/40/23	62/55/33	78/70/43	88/80/50	98/90/59	131/125/94	154/150/129	180/180/180
FOV (D/H/V) on 1/2.9" Cam	20/18/10	26/23/13	43/38/22	60/53/32	76/68/42	86/78/49	93/85/55	127/120/89	149/145/121	180/180/180
Lens Holder Height	12~13mm	12~13mm	12~13mm	12~13mm	12~13mm	12~13mm	7mm~12mm	12~13mm	12~13mm	12~13mm
IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter	650 IR filter
Mount	M12	M12	M12	M12	M12	M12	M12	M12	M12	M12
Working Wavelength	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm	400-700nm
MOD	0.3m	0.3m	0.3m	0.3m	0.3m	0.2m	0.3m	0.3m	0.2m	0.2m
Size(mm)	14 x 16.2	14 x 16.7	14 x 16.9	14 x 17.4	14 x 18.7	14 x 16.3	14 x 15.6	14 x 15.2	17.5 x 19.9	20 x 18.7
Weight	5g	7g	7g	5g	5g	4g	4g	5g	5g	8g

LENS SPECIFICATIONS

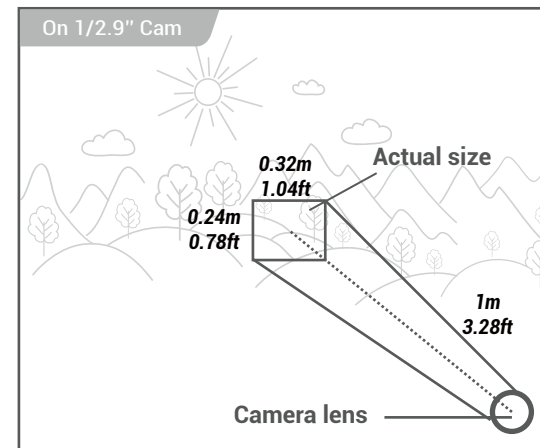
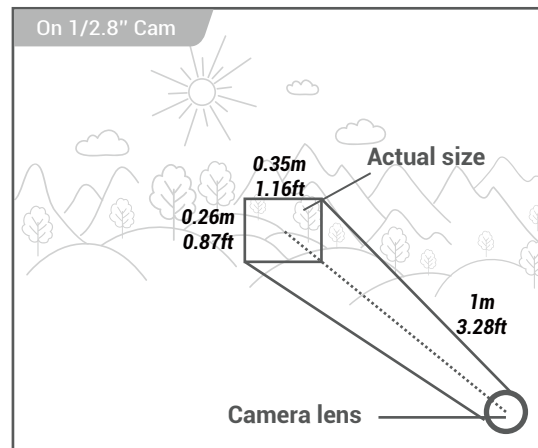
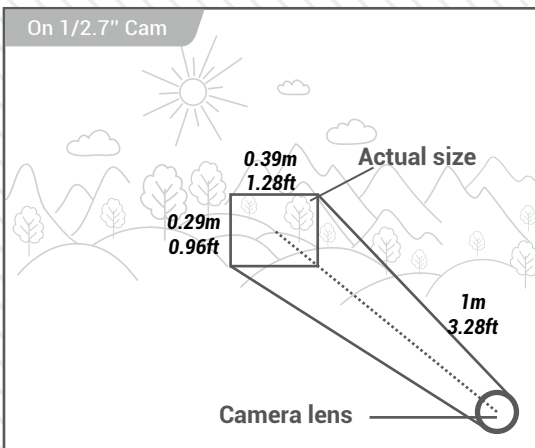
Optical Format	1/2.5"	FOV (D/H/V) @ 1/2.5"	29/23/17	Size(mm)	14 x 16.2
EFL(mm)	16	Lens Holder Height	12~13mm	Weight	5g
* 35mm EFL	102	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	25/22/12
BFL(mm)	7.1	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	23/20/11
Construction	6G+IR	Working Wavelength	400-700nm	FOV (D/H/V) on 1/2.9" Cam	20/18/10
F/NO	2.0	MOD	0.3m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



Size tolerance (mm)	0-10±0.05	10-30±0.10	30-120±0.20
Angle tolerance	±2°		

REFERENCE DIAGRAM

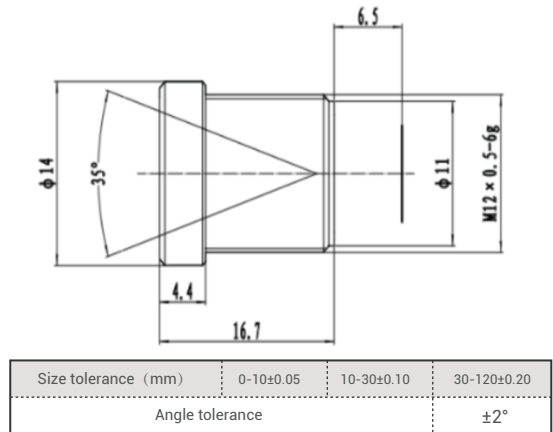


Model No: M2516ZH01

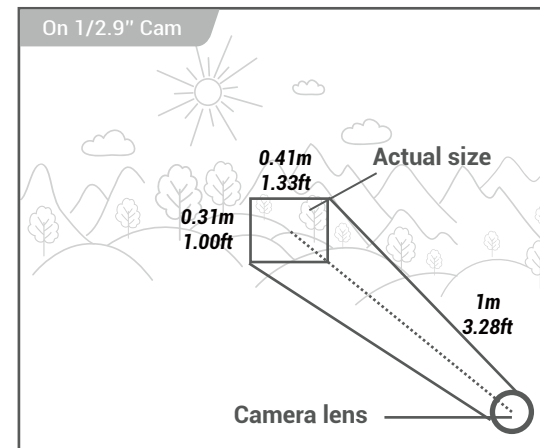
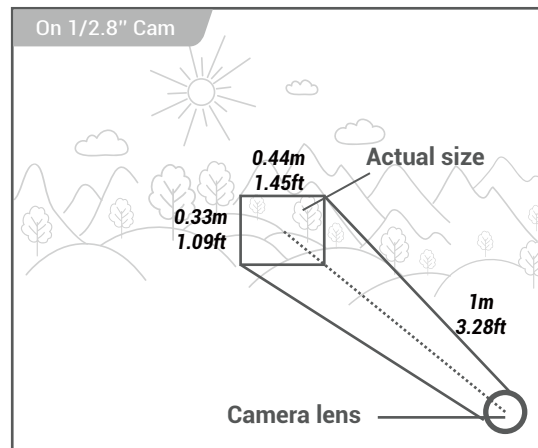
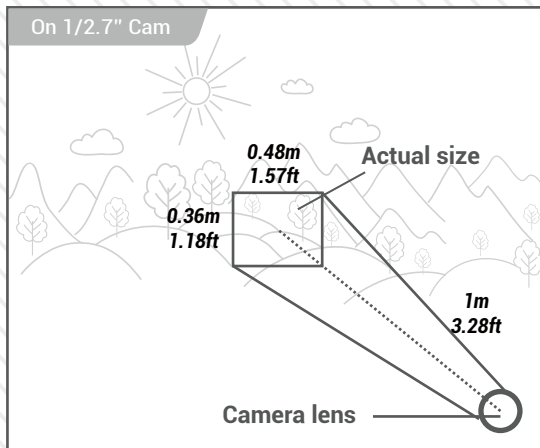
LENS SPECIFICATIONS

Optical Format	1/2.5"	FOV (D/H/V) @ 1/2.5"	35/28/21	Size(mm)	14 x 16.7
EFL(mm)	12	Lens Holder Height	12~13mm	Weight	7g
* 35mm EFL	81	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	31/27/15
BFL(mm)	6.5	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	29/25/14
Construction	6G+IR	Working Wavelength	400-700nm	FOV (D/H/V) on 1/2.9" Cam	26/23/13
F/NO	2.0	MOD	0.3m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM

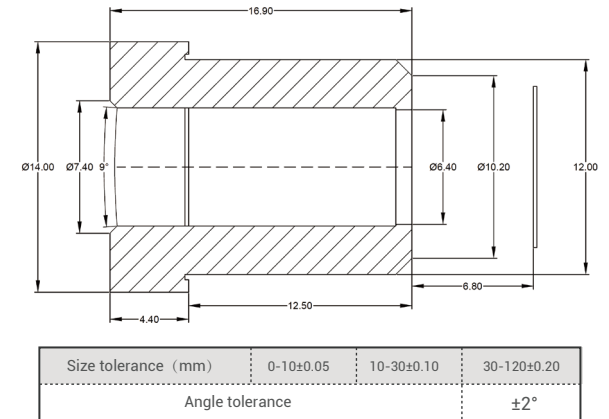


Model No: M2512ZH03

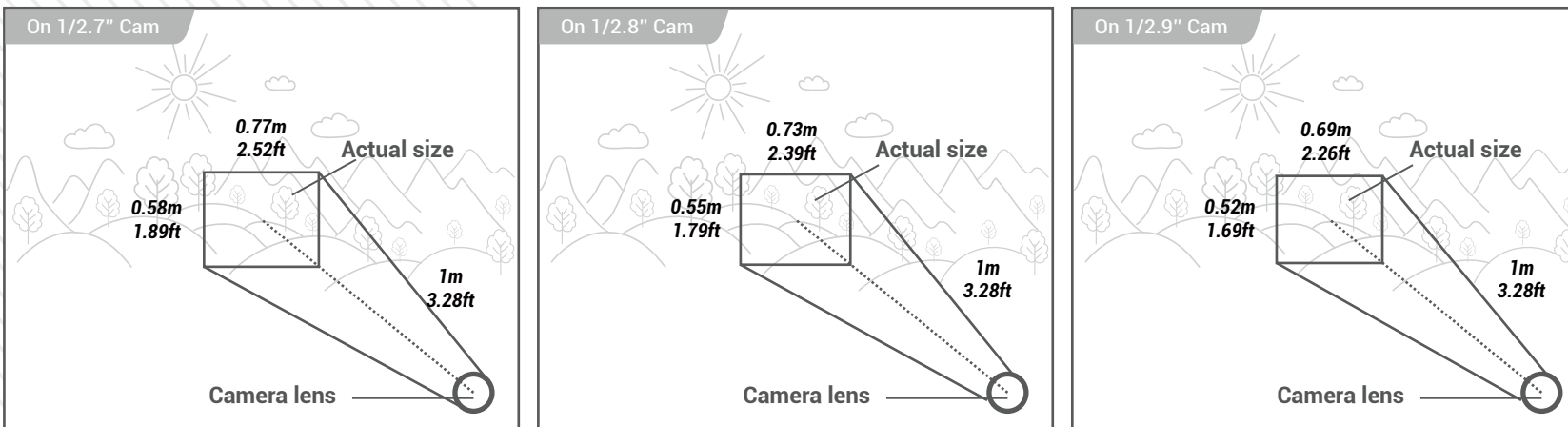
LENS SPECIFICATIONS

Optical Format	1/2.5"	FOV (D/H/V) @ 1/2.5"	50/40/30	Size(mm)	14 x 16.9
EFL(mm)	8	Lens Holder Height	12~13mm	Weight	7g
* 35mm EFL	49.5	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	48/42/25
BFL(mm)	8.1	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	45/40/23
Construction	6G+IR	Working Wavelength	400-700nm	FOV (D/H/V) on 1/2.9" Cam	43/38/22
F/NO	2.0	MOD	0.3m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM

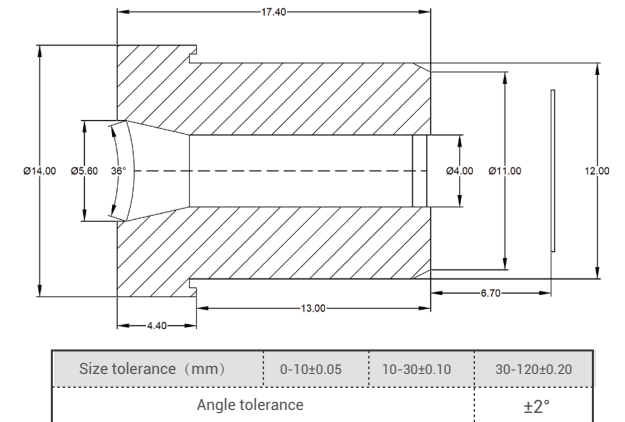


Model No: M2508ZH02

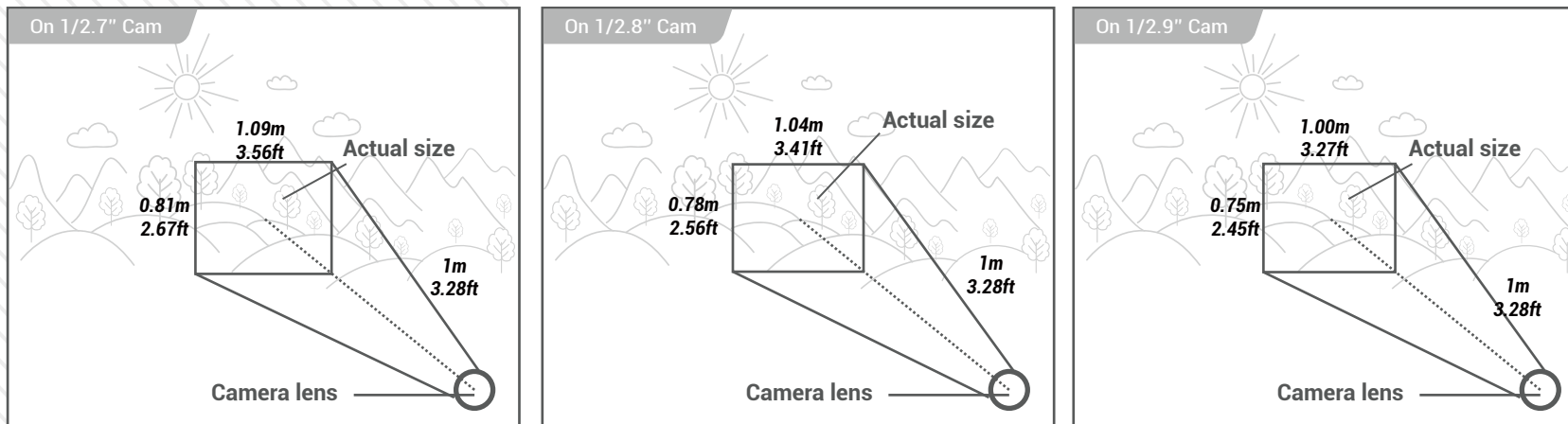
LENS SPECIFICATIONS

Optical Format	1/2.5"	FOV (D/H/V) @ 1/2.5"	67/53/41	Size(mm)	14 x 17.4
EFL(mm)	6	Lens Holder Height	12~13mm	Weight	5g
* 35mm EFL	34	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	64/57/34
BFL(mm)	7.3	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	62/55/33
Construction	6G+IR	Working Wavelength	400-700nm	FOV (D/H/V) on 1/2.9" Cam	60/53/32
F/NO	2.0	MOD	0.3m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM



Model No: M2506ZH04

LENS SPECIFICATIONS

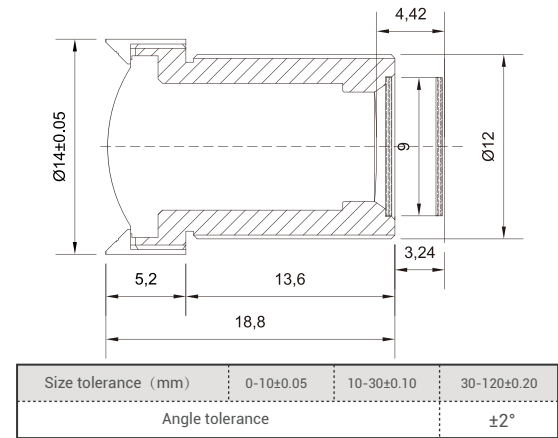
Optical Format	1/2.5"
EFL(mm)	4
* 35mm EFL	25.7
BFL(mm)	3.24
Construction	2G2P+IR
F/NO	2.8

FOV (D/H/V) @ 1/2.5"	96/75/60
Lens Holder Height	12~13mm
IR filter	650 IR filter
Mount	M12
Working Wavelength	400-700nm
MOD	0.3m

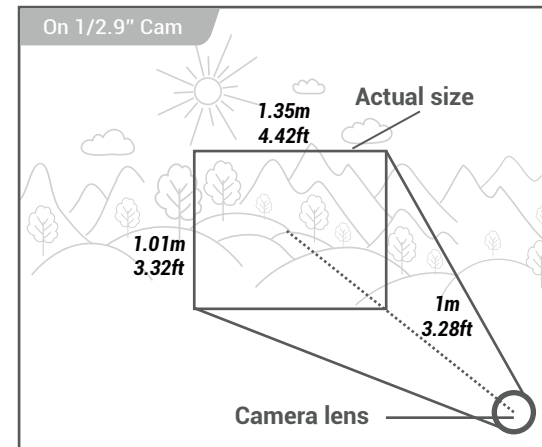
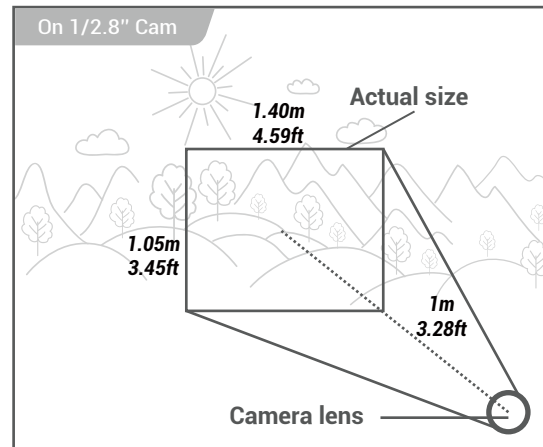
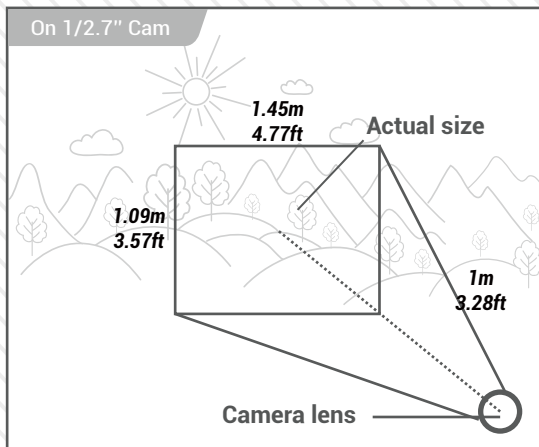
Size(mm)	14 x 18.7
Weight	5g
FOV (D/H/V) on 1/2.7" Cam	80/72/45
FOV (D/H/V) on 1/2.8" Cam	78/70/43
FOV (D/H/V) on 1/2.9" Cam	76/68/42

* 35mm Equivalent Focal Length for 1/2.8" Cam

MECHANICAL DRAWING



REFERENCE DIAGRAM

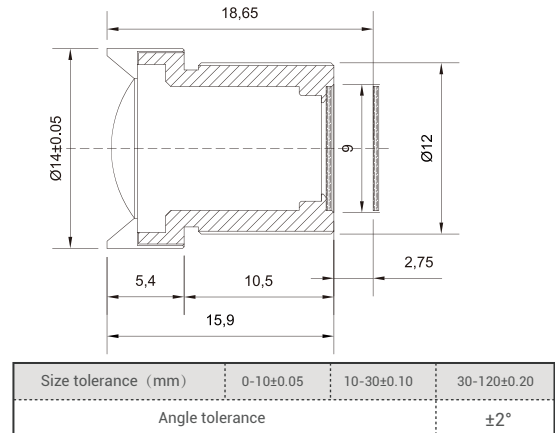


Model No: M2504ZH05S

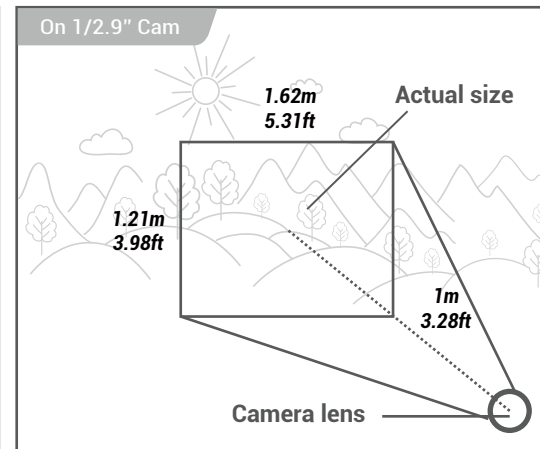
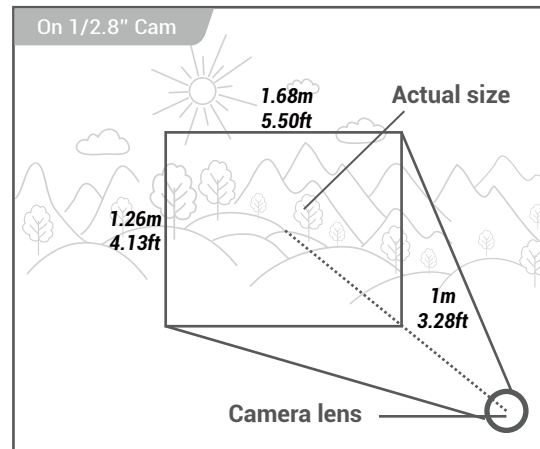
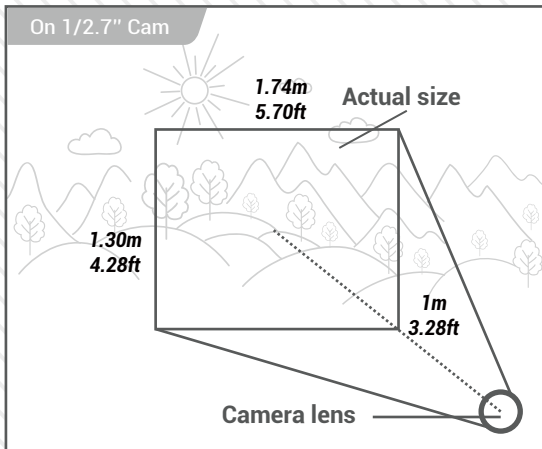
LENS SPECIFICATIONS

Optical Format	1/2.5"	FOV (D/H/V) @ 1/2.5"	120/90/75	Size(mm)	14 x 16.3
EFL(mm)	3.6	Lens Holder Height	12~13mm	Weight	4g
* 35mm EFL	21.45	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	90/82/52
BFL(mm)	2.75	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	88/80/50
Construction	2G2P+IR	Working Wavelength	400~700nm	FOV (D/H/V) on 1/2.9" Cam	86/78/49
F/NO	3.0	MOD	0.2m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM

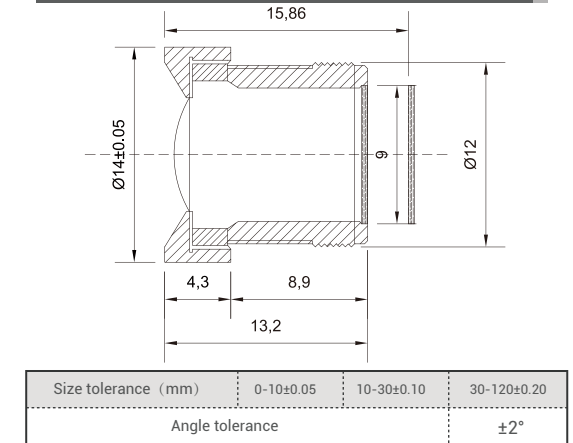


Model No: M25360H06S

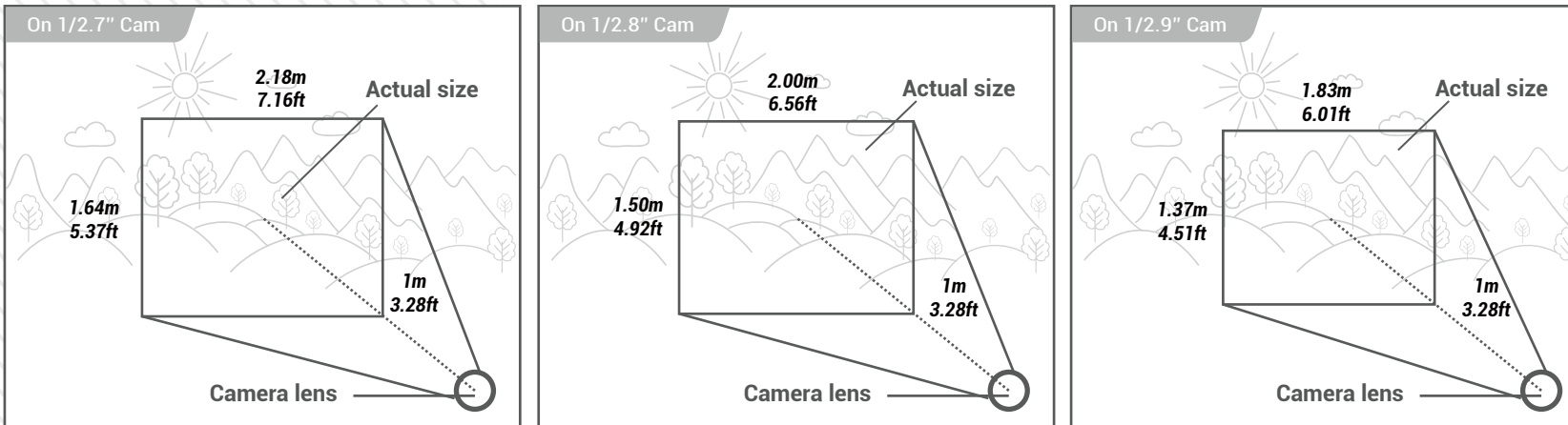
LENS SPECIFICATIONS

Optical Format	1/2.7"	FOV (D/H/V) @ 1/2.5"	125/110/85	Size(mm)	14 x 15.6
EFL(mm)	2.8	Lens Holder Height	7mm~12mm	Weight	4g
* 35mm EFL	18	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	103/95/63
BFL(mm)	2.6	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	98/90/59
Construction	2G2P+IR	Working Wavelength	400-700nm	FOV (D/H/V) on 1/2.9" Cam	93/85/55
F/NO	2.8	MOD	0.3m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM



Model No: M27280M07S

LENS SPECIFICATIONS

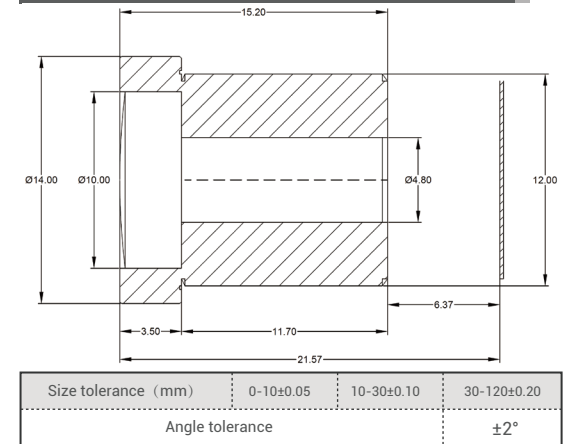
Optical Format	1/2.7"
EFL(mm)	2.1
* 35mm EFL	9.37
BFL(mm)	6.3
Construction	6G+IR
F/NO	2.0

FOV (D/H/V) @ 1/2.5"	170/120/80
Lens Holder Height	12~13mm
IR filter	650 IR filter
Mount	M12
Working Wavelength	400-700nm
MOD	0.3m

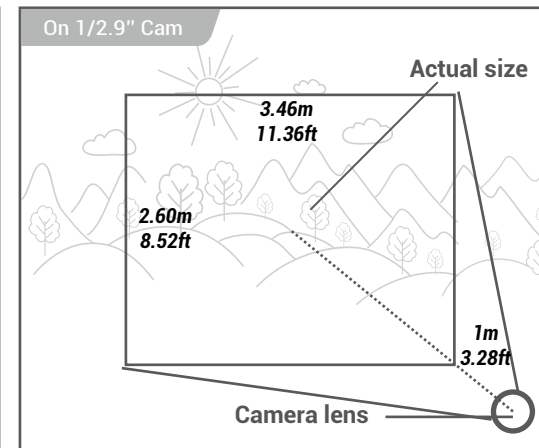
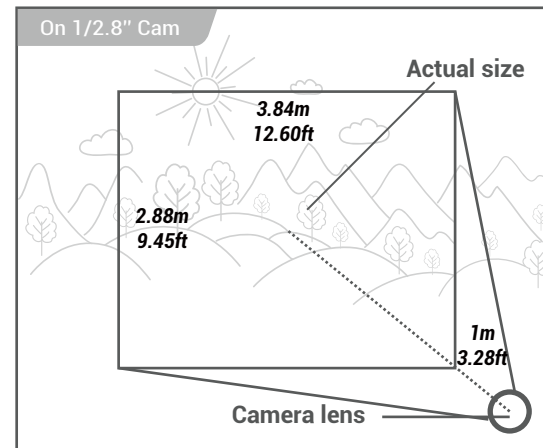
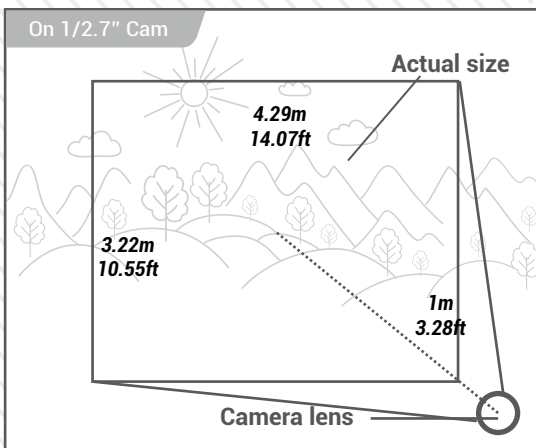
Size(mm)	14 x 15.2
Weight	5g
FOV (D/H/V) on 1/2.7" Cam	136/130/101
FOV (D/H/V) on 1/2.8" Cam	131/125/94
FOV (D/H/V) on 1/2.9" Cam	127/120/89

* 35mm Equivalent Focal Length for 1/2.8" Cam

MECHANICAL DRAWING



REFERENCE DIAGRAM

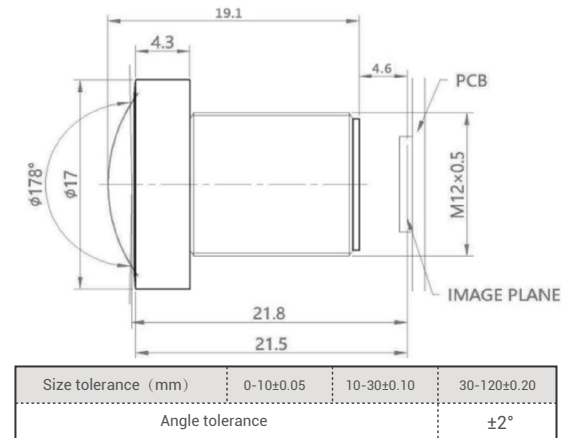


Model No: M27210H08

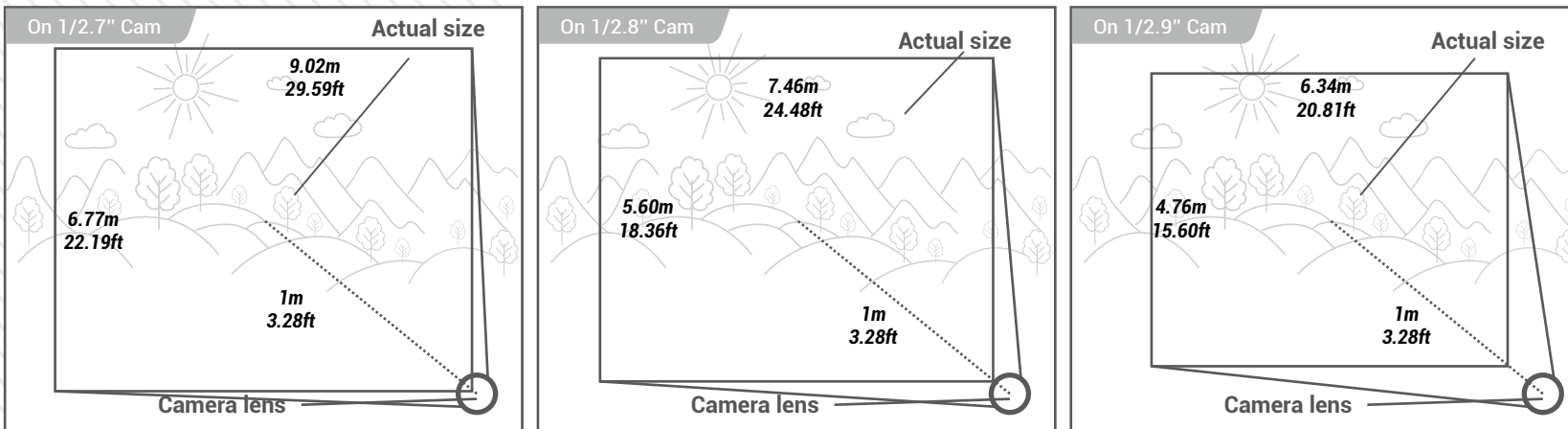
LENS SPECIFICATIONS

Optical Format	1/2.7"	FOV (D/H/V) @ 1/2.5"	180/160/150	Size(mm)	17.5 x 19.9
EFL(mm)	1.95	Lens Holder Height	12~13mm	Weight	5g
* 35mm EFL	4.82	IR filter	650 IR filter	FOV (D/H/V) on 1/2.7" Cam	158/155/136
BFL(mm)	3.8	Mount	M12	FOV (D/H/V) on 1/2.8" Cam	154/150/129
Construction	6G+IR	Working Wavelength	400~700nm	FOV (D/H/V) on 1/2.9" Cam	149/145/121
F/NO	2.0	MOD	0.2m	* 35mm Equivalent Focal Length for 1/2.8" Cam	

MECHANICAL DRAWING



REFERENCE DIAGRAM



Model No: M27195H15

LENS SPECIFICATIONS

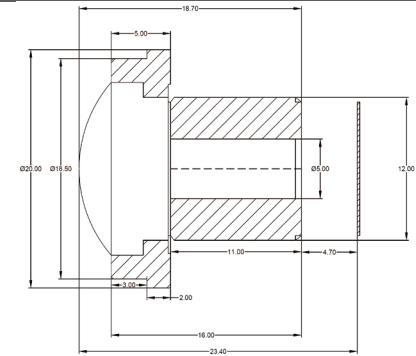
Optical Format	1/2.5"
EFL(mm)	1.7
* 35mm EFL	1.1
BFL(mm)	4.7
Construction	6G+IR
F/NO	2.0

FOV (D/H/V) @ 1/2.5"	180/180/140
Lens Holder Height	12~13mm
IR filter	650 IR filter
Mount	M12
Working Wavelength	400-700nm
MOD	0.2m

Size(mm)	20 x 18.7
Weight	8g
FOV (D/H/V) on 1/2.7" Cam	180/180/180
FOV (D/H/V) on 1/2.8" Cam	180/180/180
FOV (D/H/V) on 1/2.9" Cam	180/180/180

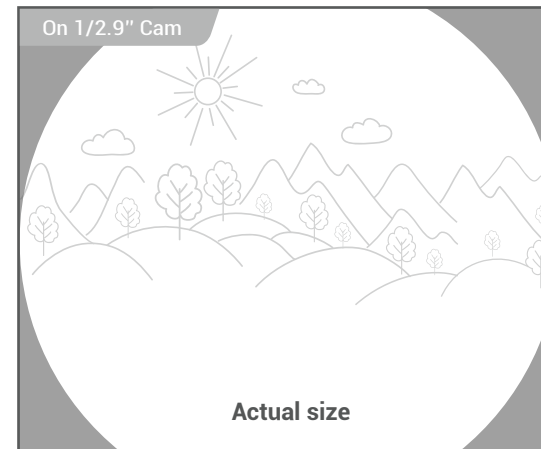
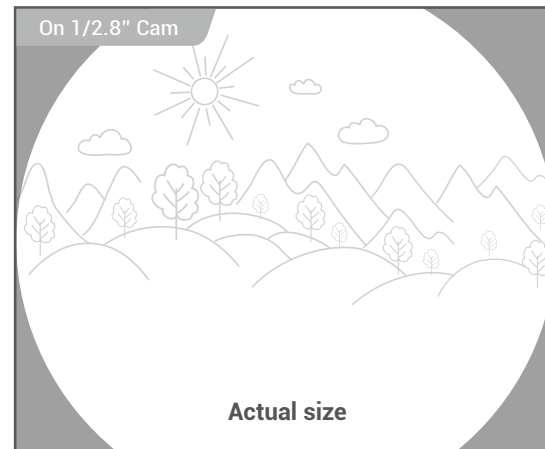
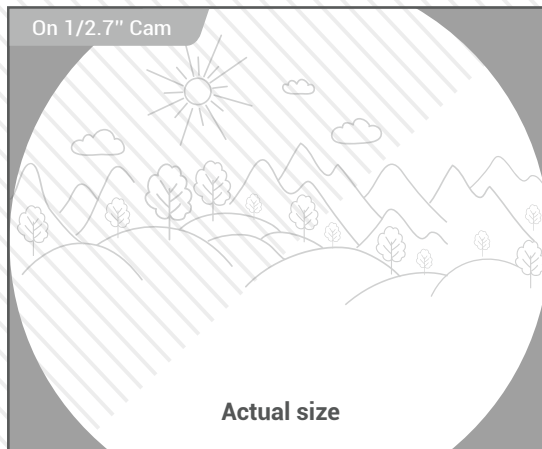
* 35mm Equivalent Focal Length for 1/2.8" Cam

MECHANICAL DRAWING



Size tolerance (mm)	0-10±0.05	10-30±0.10	30-120±0.20
Angle tolerance	±2°		

REFERENCE DIAGRAM



Model No:M25170H12