



Quality of Light

go SWIR

SEE WHAT CANNOT BE SEEN.

Kowa Vis-SW^{IR}-Corrected

HC-VIS-SW
LENS SERIES

1"

12
MP

3.1 μ m

NEW

HC-VIS-SW

Vis-SWIR-Corrected Lens Series

1"

12
MP

3.1 μ m



8
mm

12
mm

16
mm

25
mm

35
mm

50
mm

Image size	1" (Φ16)
Mount	C-mount
Resolution	12 MP (3.1μm)
F No.	F1.8 (50mm lens is F 2.5)
Wavelength	Visible-2000nm



Watch video

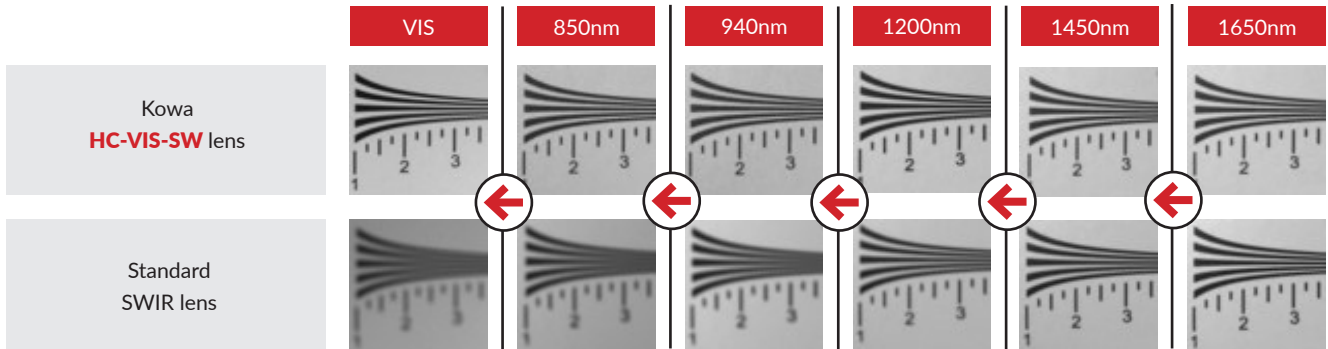


Technical data and
marketing materials.

- > **Virtually zero focus shift** from visible to 2000nm wavelength range.
- > Utilizes **ultra wideband multi-coatings** to increase transmission.
- > **Special extra low dispersion (XD) glass** significantly reduces chromatic aberration, otherwise known as color fringing.
- > Includes Kowa's signature **floating mechanism** design that eliminates optical aberrations from close distance to infinity.
- > A maximum of **12 megapixel and 3.1µm performance** can be found at select wavelength ranges.
- > **Low distortion.**

NEW

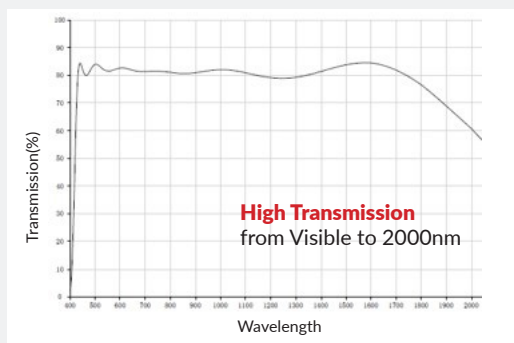
Virtually zero focus shift from Visible to SWIR



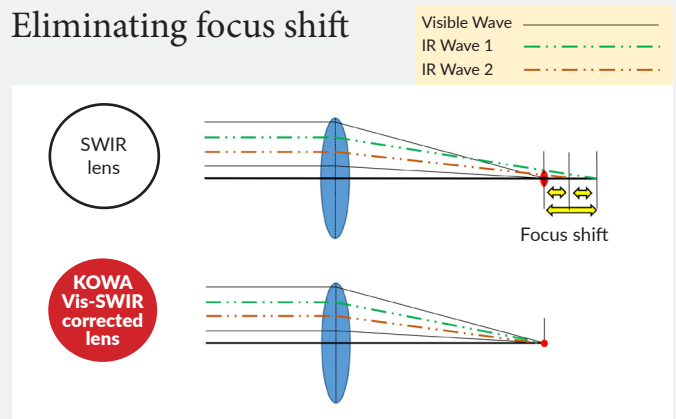
*Focus is fixed at 1650nm and switch the wavelength

The primary benefit for Vis-SWIR Correction is that it allows an image to remain in focus even when the wavelength changes from visible to infrared or vice versa. With a standard visible, NIR or SWIR lens, a focus shift will occur due to differences in the refractive index if the wavelength fluctuates. However, by incorporating extra low dispersion (XD) glass and carefully aligning all internal lens elements, such focus shift problems are eliminated.

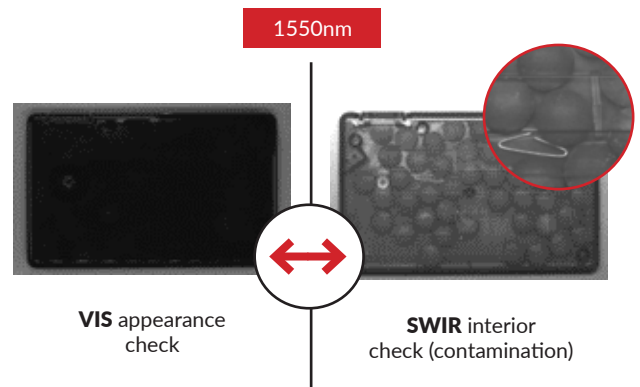
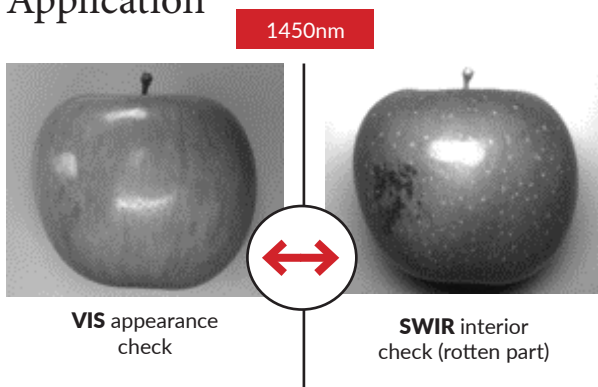
Kowa ultra wideband multi-coating



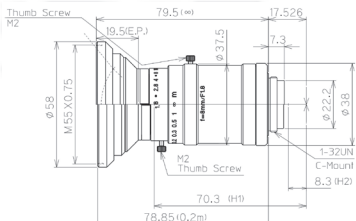
Eliminating focus shift



Application

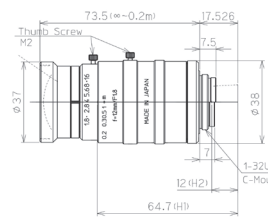


LM8HC-VIS-SW



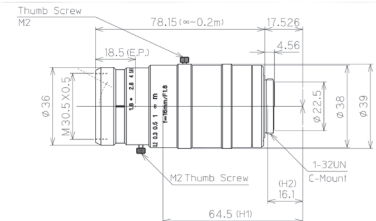
1" 1.8/8mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=8mm			
F-NUMBER	F=1.8-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 63.5°	44.8°	36.9°	19.1°
HOR. ANGLE	81.5°	58.7°	48.6°	25.2°
DIAG. ANGLE	96.2°	71.6°	59.9°	31.6°
DISTORTION (TV)	VER. -3.7%	-2.4%	-1.8%	-0.41%
FIELD OF VIEW	VER. 27.2mm	18mm	14.6mm	7.2mm
MINIMUM FOCUS DISTANCE	HOR. 38.7mm	24.7mm	19.8mm	9.7mm
	VER. 4.9mm	3.7mm	2.5mm	1.2mm
MINIMUM FOCUS DISTANCE	0.2m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	11.1mm in air			
FILTER SCREW SIZE	M3.5x0.75			
FRONT/REAR EFFECTIVE DIA.	FRONT #19.2mm	REAR #15.0mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-6.6mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 80lp/mm		
WEIGHT	2.35g			

LM12HC-VIS-SW



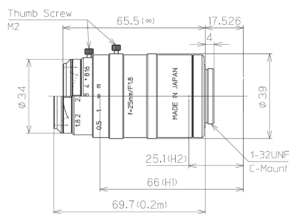
1" 1.8/12mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=12mm			
F-NUMBER	F=1.8-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 44.5°	31.1°	25.5°	13.1°
HOR. ANGLE	58.0°	41.0°	33.8°	17.8°
DIAG. ANGLE	70.1°	50.5°	41.9°	21.9°
DISTORTION (TV)	VER. -1.6%	-0.97%	-0.69%	-0.17%
FIELD OF VIEW	VER. 17.5mm	19mm	17mm	12mm
MINIMUM FOCUS DISTANCE	HOR. 23.7mm	16.0mm	13.0mm	7.2mm
	VER. 300mm	202mm	164mm	100mm
MINIMUM FOCUS DISTANCE	0.2m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	11.1mm in air			
FILTER SCREW SIZE	M3x0.5			
FRONT/REAR EFFECTIVE DIA.	FRONT #23.2mm	REAR #14.7mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-4.6mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 100lp/mm		
WEIGHT	1.75g			

LM16HC-VIS-SW



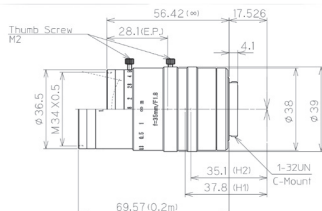
1" 1.8/16mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=16mm			
F-NUMBER	F=1.8-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 33.6°	23.3°	19.1°	10.1°
HOR. ANGLE	44.2°	31.0°	25.2°	13.1°
DIAG. ANGLE	54.2°	38.4°	31.6°	16.1°
DISTORTION (TV)	VER. -0.81%	-0.55%	-0.41%	-0.10%
FIELD OF VIEW	VER. 12.9mm	8.8mm	7.2mm	4.5mm
MINIMUM FOCUS DISTANCE	HOR. 17.4mm	11.8mm	9.7mm	4.9mm
	VER. 220mm	149mm	121mm	75mm
MINIMUM FOCUS DISTANCE	0.2m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	15.0mm in air			
FILTER SCREW SIZE	M3.0x0.5			
FRONT/REAR EFFECTIVE DIA.	FRONT #20.6mm	REAR #15.3mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-8.2mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 100lp/mm		
WEIGHT	x.xxg			

LM25HC-VIS-SW



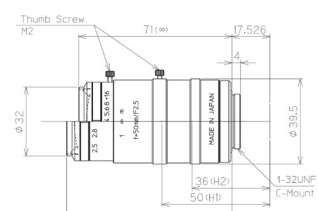
1" 1.8/25mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=25mm			
F-NUMBER	F=1.8-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 22.0°	15.0°	12.3°	6.2°
HOR. ANGLE	29.2°	20.2°	16.5°	8.2°
DIAG. ANGLE	36.4°	25.2°	20.6°	10.3°
DISTORTION (TV)	VER. -0.97%	-0.69%	-0.49%	-0.13%
FIELD OF VIEW	VER. 8.1mm	5.6mm	4.5mm	2.9mm
MINIMUM FOCUS DISTANCE	HOR. 10.9mm	7.4mm	6.1mm	3.8mm
	VER. 138mm	9.3mm	7.6mm	4.8mm
MINIMUM FOCUS DISTANCE	0.2m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	24.5mm in air			
FILTER SCREW SIZE	M2.7x0.5			
FRONT/REAR EFFECTIVE DIA.	FRONT #18.9mm	REAR #18.7mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-22.3 mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 100lp/mm		
WEIGHT	160g			

LM35HC-VIS-SW



1" 1.8/35mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=35mm			
F-NUMBER	F=1.8-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 15.2°	10.6°	8.6°	4.6°
HOR. ANGLE	20.4°	14.0°	11.5°	5.9°
DIAG. ANGLE	25.6°	17.6°	14.2°	7.5°
DISTORTION (TV)	VER. -0.41%	-0.21%	-0.13%	-0.03%
FIELD OF VIEW	VER. 5.1mm	3.9mm	2.9mm	1.8mm
MINIMUM FOCUS DISTANCE	HOR. 6.8mm	4.7mm	3.8mm	2.4mm
	VER. 86mm	5.9mm	4.8mm	3.0mm
MINIMUM FOCUS DISTANCE	0.2m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	16.4mm in air			
FILTER SCREW SIZE	M3x0.5			
FRONT/REAR EFFECTIVE DIA.	FRONT #26.7mm	REAR #14.3mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-45.2mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 100lp/mm		
WEIGHT	170g			

LM50HC-VIS-SW



1" 2.5/50mm C		1"	2/3"	1/1.8"
FOCAL LENGTH	f=50mm			
F-NUMBER	F=2.5-16			
PICTURE SIZE	9.6x12.8mm	6.6x8.8mm	5.4x7.2mm	
ANGLE OF VIEW	VER. ANGLE 11.0°	7.6°	6.2°	3.2°
HOR. ANGLE	14.6°	10.0°	8.2°	4.1°
DIAG. ANGLE	18.2°	12.6°	10.3°	5.3°
DISTORTION (TV)	VER. -0.11%	-0.06%	-0.04%	-0.01%
FIELD OF VIEW	VER. 9.5mm	6.6mm	5.4mm	2.7mm
MINIMUM FOCUS DISTANCE	HOR. 12.7mm	8.7mm	7.1mm	3.6mm
	VER. 15.9mm	10.9mm	8.9mm	4.4mm
MINIMUM FOCUS DISTANCE	0.5m			
FLANGE BACK	17.526mm in air			
BACK FOCUS	34.9mm in air			
FILTER SCREW SIZE	M3.0x0.5			
FRONT/REAR EFFECTIVE DIA.	FRONT #23.5mm	REAR #17.7mm		
MOUNT	C-MOUNT			
EXIT PUPIL	-115.2mm			
TEMPERATURE RANGE	-10~+50 °C			
STORAGE TEMPERATURE RANGE	-20~+60 °C			
RESOLUTION (CENTER/CORNER)	CENTER 160lp/mm	CORNER 100lp/mm		
WEIGHT	155g			



Quality of Light

Search Kowa lenses



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