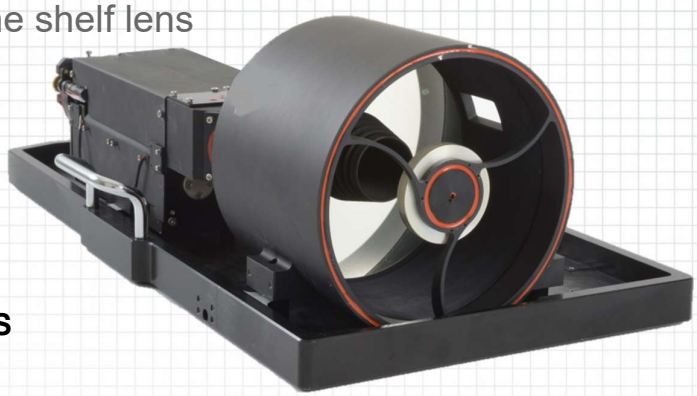
VIS-SWIR zoom – commercial off the shelf lens

AMARYLLIS



SWIR 500 – 2500mm Continuous zoom
VISIBLE 400 / 1620mm Dual FOV
Compact Dual Band VIS/SWIR
Ultra Long distance zoom lens

FEATURES / APPLICATIONS / CAPABILITIES

- Zoom ratio: X4 in VIS, X5 in SWIR
- True high performance zoom lens built as 1 unit using both VIS and SWIR detectors
- Offered as: SWIR ONLY, VIS ONLY or VIS-SWIR full configuration.

PARAMETER		VALUE			
Main	Sub	**VIS**	**SWIR SD / HD**		
OPTICAL		**VIS CHANNEL**	**w/ SD**	**w/ HD detector**	**Notes on SWIR**
Focal Length / F#		Discrete 400/1620mm	Cont. 500-2500mm F/4-16	Cont. 600-2500mm F/4-16	HD 1,280 x 1,024 x 10u detectors can be supported with the following limitations: The MTF and relative illumination at detector corners and near corners fall.
Working spectral band		0.4 – 0.9µ	0.9 – 1.7µ'		
Maximum det size supported		Up to 7.0 x 5.34 mm	9.6x7.68 mm	12.8 x 7.2 mm	
Resolution supported		WFOV: HD (pixel ≥ 3.45u) NFOV: SD (pixel ≥ 6.9u)	15µ pixel for full zoom range	10µ pixel for 600 – 2500 mm zoom	
FOV (degrees)		Narrow: 0.25° x 0.19° Wide: 1° x 0.75°	N: 0.22°x 0.17° W: 1.1° x 0.88°	N: 0.29° x 0.17° W: 1.22° x 0.68°	
Geometrical Instantaneous FOV (Geometrical IFOV)		Narrow (SD): 4.25uRad Wide (HD): 8.6uRad	N: 6uRad W: 30uRad	N: 4uRad W: 16.7uRad	
Optical Average transmission		>67%	>60%		
Optical Back Focal Length		> 20 mm	> 20 mm		
Optical filters		Up to 5 filters: default is 2 filters	Up to 5 filters: default is 4 filters		
MECHANICAL					
Mechanical Back Focal		17.5 (C-mount)			
Focus / Zoom mechanism		Motorized			
LOS shift during Zooming		< 0.35mRad			
Focus / Zoom pos. indication		Included			
Total Weight		8.5Kg (for VIS-SWIR full configuration)			
Structure		Open frame, Cassegrain			
External Dimensions		186mm Ø x 559 mm Length			
ELECTRICAL		Value	Notes		
Power Input		12VDC, 1.0A	Nominal		
Communication Protocol		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1		
ENVIRONMENTAL					
Operating/ Storage Temperature		-20ºC to +50ºC / -30ºC to +70ºC			
Shock and Vibrations		Per applicable standard			

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