

MWIR HD Continuous zoom – commercial off the shelf lens

# DOVE115 & DOVE170

15-115mm & 25–170mm MWIR F/3.6

Miniature Continuous zoom Lens  
for 10 $\mu$  SD sensors



## FEATURES / APPLICATIONS / CAPABILITIES

- Miniature, low weight lens
- Highest resolution performance over entire zoom range
- X7.5 optical zoom
- Rugged design to comply with various applications
- Focus is maintained throughout the entire zoom range, with extremely fast zoom and focus response

PARAMETER		VALUE	NOTES
Main	Sub		
OPTICAL		<b>DOVE115</b>	<b>DOVE170</b>
<b>Focal Length / F#</b>		15-115mm F/3.6	25-170mm F/3.6
<b>Detector (FPA) type / size</b>		640 x 512 x 10 $\mu$ m (6.4 x 5.12mm) with ~12mm CSH	
<b>Working Spectral Range</b>		3 – 5 $\mu$	
<b>FOV</b>		Wide: 24.5°(H) x 20°(V) Narrow: 3.2°(H) x 2.5°(V)	Wide: 16.3°(H) x 13°(V) Narrow: 2.15°(H) x 1.7°(V)
<b>For detector size of 6.4 x 5.12mm</b> <b>All values are nominal: to within +/- 5% accuracy</b>			
<b>Optical Coatings</b>	<b>Internal surfaces</b>	High efficiency AR coating	High efficiency AR coating
	<b>Front surface</b>	HDAR or DLC	HDAR or DLC
<b>Optical Total lens track</b>		85mm	119mm
<b>Cold Stop distance</b>		12 $\pm$ 1mm	
<b>Optical Back Focal Length</b>		19mm Nominal	
MECHANICAL			
<b>Mechanical Back Focal Length</b>		18.25mm Nominal for standard MICD.	
<b>Zoom, Focus mechanism</b>		Motorized	
<b>Thru Focus / zoom boresight</b>		< 6 pixels diameter around optical axis	
<b>Boresight retention</b>		< 2 pixels diameter	
<b>Focus Range</b>		10m – Infinity	15m – Infinity
<b>Total Weight (Nominal)</b>		180gr	270gr
<b>Dimensions (<math>\varnothing</math> x Length)</b>		45 x 65mm	63 x 101mm
ELECTRICAL			
<b>Power Input</b>		12VDC, 1.0 A	Nominal
<b>Communication Protocol</b>		RS-422/232 Full Duplex	Baud rate 19,200, n, 8, 1
ENVIRONMENTAL			
<b>Operating/Storage Temperature</b>		-30°C to +50°C / -40°C to +70°C	
<b>Shock and Vibrations</b>		Per applicable standard	
<b>Front lens sealing</b>		IP66 By request	IP66 By default

