

LWIR A-Thermal – commercial off the shelf lens

FALCON

19 mm F/0.9 LWIR A-Thermal Lens
for large FPA detectors



FEATURES / APPLICATIONS / CAPABILITIES

- True A-Thermal lens for -40°C to + 62°C temperature range
- Rugged design for harsh environments
- High sensitivity F# as low as 0.9, supporting multiple detector formats
- Optimized for DVE applications and other remote driving applications

PARAMETER		VALUE	NOTES
Main	Sub		

OPTICAL

Focal Length / F#	19 mm / F0.9	Nominal values.
Detector (FPA) type / size	1024 x 768 pixles x17μ or smaller	
FOV (degrees)	FOV: 48° (H) x 36° (V)	640 x 480 pixles x 25 microns
	FOV: 28.4° (H) x 21.5° (V)	384 x 288 pixels x 25 microns
	FOV: 32° (H) x 26° (V)	640 x 480 pixles x 17 microns
	FOV: 52.25° (H) x 39.2° (V)	1024 x 768 pixles x17 microns

Optical Coatings

	All internal surfaces	High efficiency AR coating	Average transmission: 84%
	Front surface	DLC coating	Hi durability AR coating is optional
Optical Total lens track	86.8 mm / 12 mm	To FPA. Assuming 1mm Ge cover glass	

MECHANICAL

Mechanical Back Focal Length	11 mm	To FPA. Assuming 1mm Ge cover glass
Total Weight	280 gram	Nominal
External Dimensions	Front Diameter: 58 mm; Rear Diameter: 45 mm Length: 70 mm	
Mount/ Mechanical Interface	Please refer to MICD	Custom interfacing, available upon request

ENVIRONMENTAL

Operating Temperature	-40°C to +62°C	A-Thermal lens over the entire working range
Storage Temperature	-40°C to +70°C	
Shock and Vibrations	Per applicable standard	

