

MirZ 4021

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MWIR 40-840mm (X21) F/5.5 Continuous Zoom Lens

MirZ Series, Suitable for 3-5 μ m Cooled Detectors (MWIR)



Key Features:

- Relatively compact size and recognition of small targets at ranges up to 14km makes this lens ideal for long range IR applications
- Motorized continuous zoom allows you to zoom while keeping imagery sharp
- The lens controller auto-compensates thermal deviations and keeps the imagery crisp within a wide temperature range
- Athena™ programmable DSP controller gives you the freedom to set targets and to calibrate the lens for different field conditions
- Operate and calibrate the lens with our simple and friendly GUI, or through common communication protocols

MirZ 4021 Specifications:

Optical Specifications (nominal values)	WFOV	NFOV
Focal Length	40mm	840mm
F/#	f/5.5	
Spectral Range	3.4 - 5.1 microns	
Image Format	640 x 512 pixels, 15 micron pixel size	
Image Diagonal	12.3mm	
Back Focal Length	24.0mm (+/-3mm)	
Cold Stop to FPA Distance	19.7mm	
Average Transmission (all elements AR coated)	> 78%	
Horizontal FOV	13.4°	0.65°
Distortion	< 5%	< 3%
On-Axis MTF	> 25% at 25 lp/mm	
MOD	15 meters	100 meters

Mechanical Specifications

Max Dimensions	Length = 245.77mm, Front OD = 206mm
Focus / Zoom Mechanisms	Continuous - Motorized & Synchronized
Zoom Time (WFOV to NFOV)	< 4.5 sec. @ 25°C
Through-Zoom Boresight	< 5 pixel deviation
Weight	~ 2100 grams
Mount	Customized to Specification
Operating Temperature	-30°C to +65°C
Storage Temperature	-40°C to +80°C

Electronic and Communications

Lens Control	Athena™ Programmable DSP Controller
Drive Voltage & Current Consumption	12VDC, 1.5A Peak / 0.3A Average / 0.1A Idle
Communication Interface	RS422/232
Communication Protocol	Athena™ GUI & Protocol

MirZ 4021 Field of View Data:

WFOV (40mm)				NFOV (840mm)			
HFOV	320x240	480x384	640x512	HFOV	320x240	480x384	640x512
30 microns	13.50			30 microns	0.65		
25 microns	11.31	16.70	21.80	25 microns	0.55	0.82	1.09
15 microns	6.84	10.20	13.50	15 microns	0.33	0.49	0.65