

SWIR

EN-S-30~300-2,8~4,3-E Continuous Zoom Lens

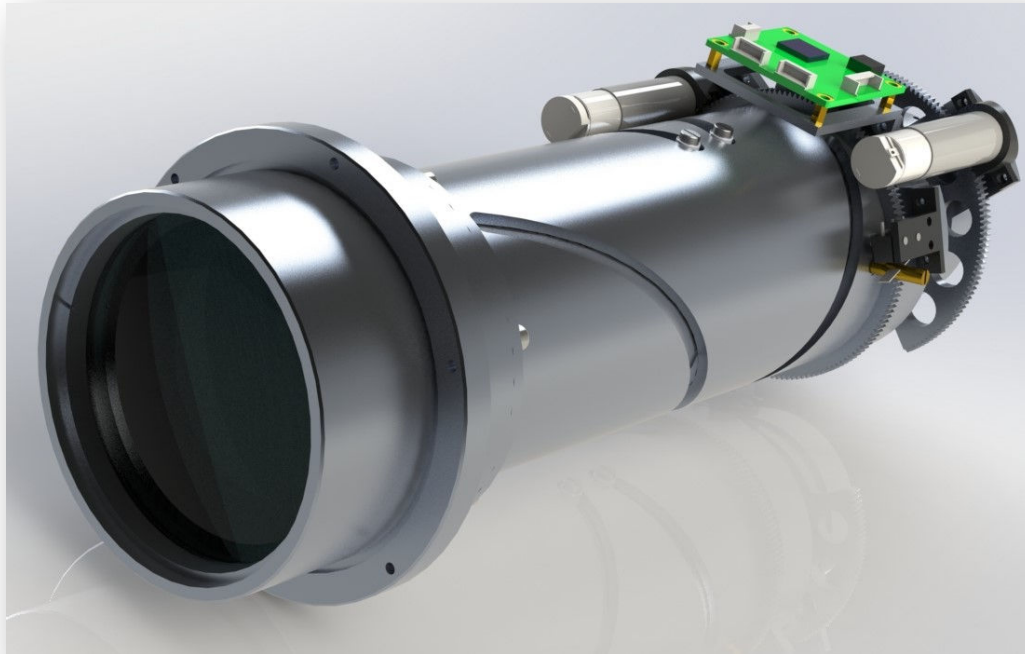
TECHNICAL SPECIFICATION

Xia Rihui

Update:5-19-2022

Version History

Update Time	Description
5-19-2022	original version



1. Lens Parameters

1.1 Optical Parameters

Parameter	Design result		Remark
	WFOV	NFOV	
EFL	30mm	300mm	
F/#	2.8	4.3	
Detector	640x512-15 μ m		
HFOV x VFOV	18.18°x14.59°	1.83°x1.47°	
Spectrum Range	0.9 μ m~1.7 μ m		
External Coating	AR		
Transmittance	~85%		Test 1mm Sample
O.T.R.	-30°C~+55°C		
S.T.R.	-45°C~+75°C		
Focus Range	10m-Infinity	100m-Infinity	
Distortion	<2%	<2%	

1.2 Mechanical Parameters

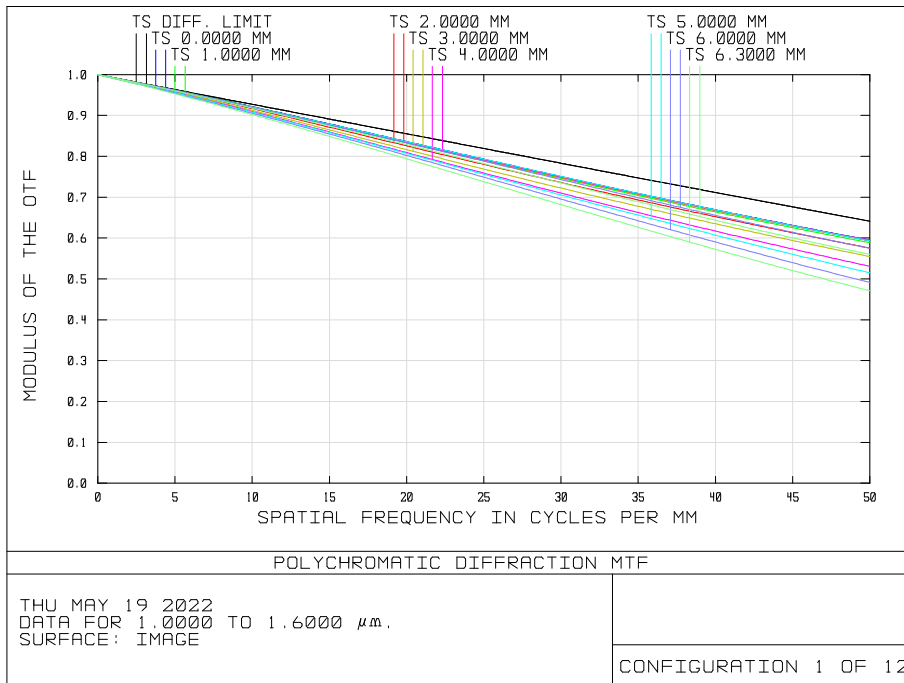
Parameter	Design result	Remark
Weight	~2.0Kg	
Sealing	IP66	First Lens
Camera Mount	1"-32UN	C-Mount
Lens Mount	Flange	See attachment
FFL	17.5mm	C-Mount
Max Dimensions	275.77mm x φ100mm	
Focus Mechanism	Motorized	
Zoom Mechanism	Motorized	
Focus Time	Depends on parameter setting	
Zoom Time		

1.3 Electrical Parameters

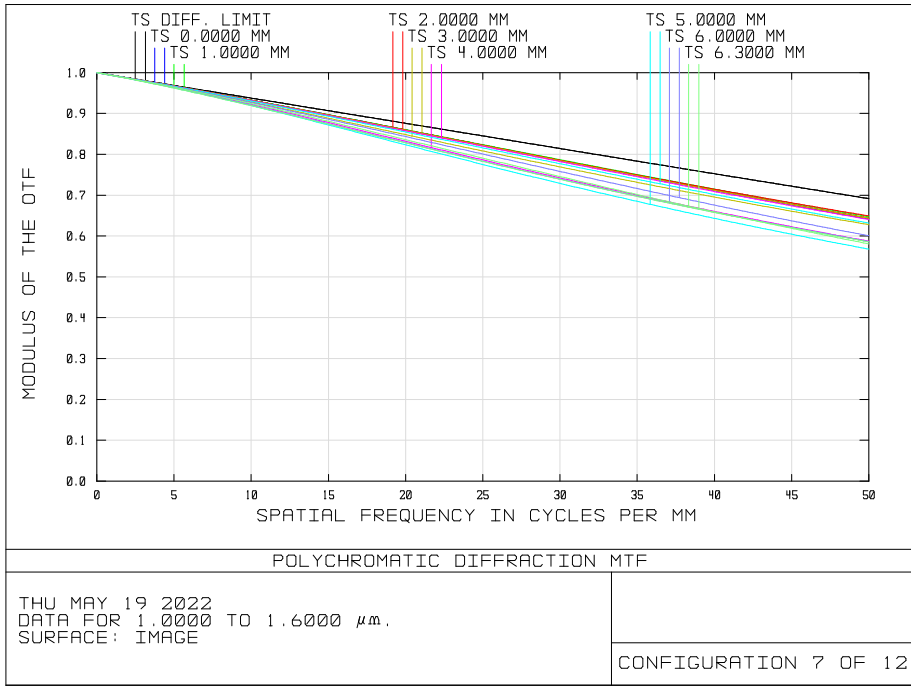
Parameter	Design result	Remark
Drive Voltage	12V DC	See "Operation Guide of Lens Control Circuit"
Communication Protocol	RS232 /422	
Software	MotorCtr.exe	

2. Performance

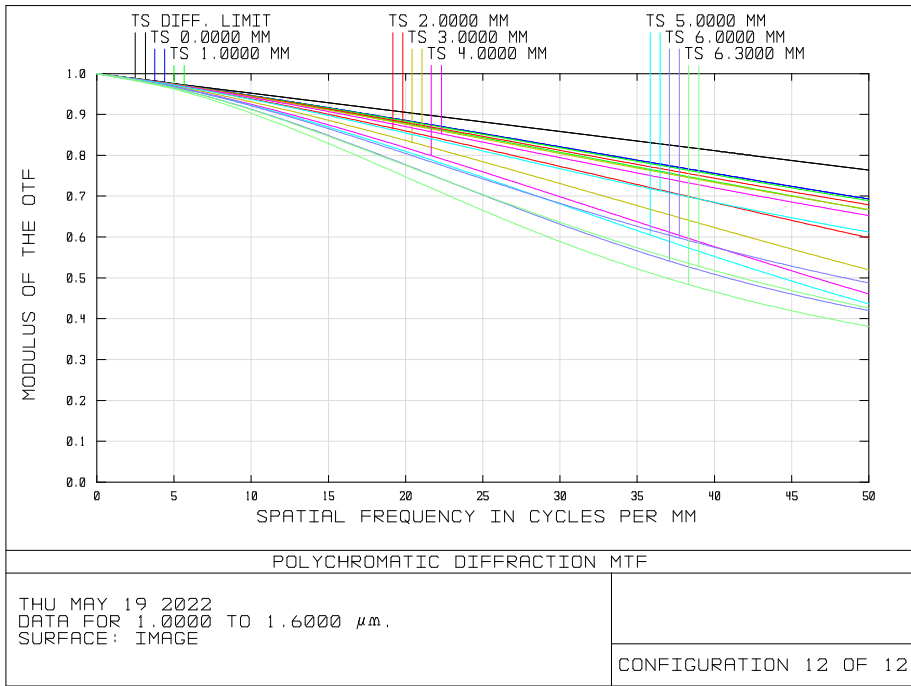
2.1 MTF



EFL 300mm

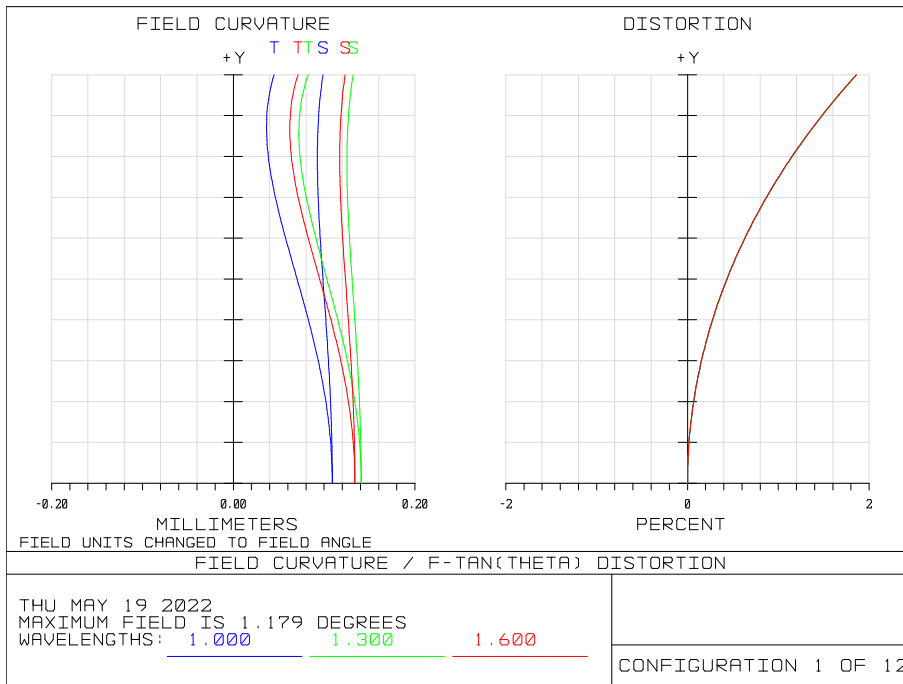


EFL 150mm

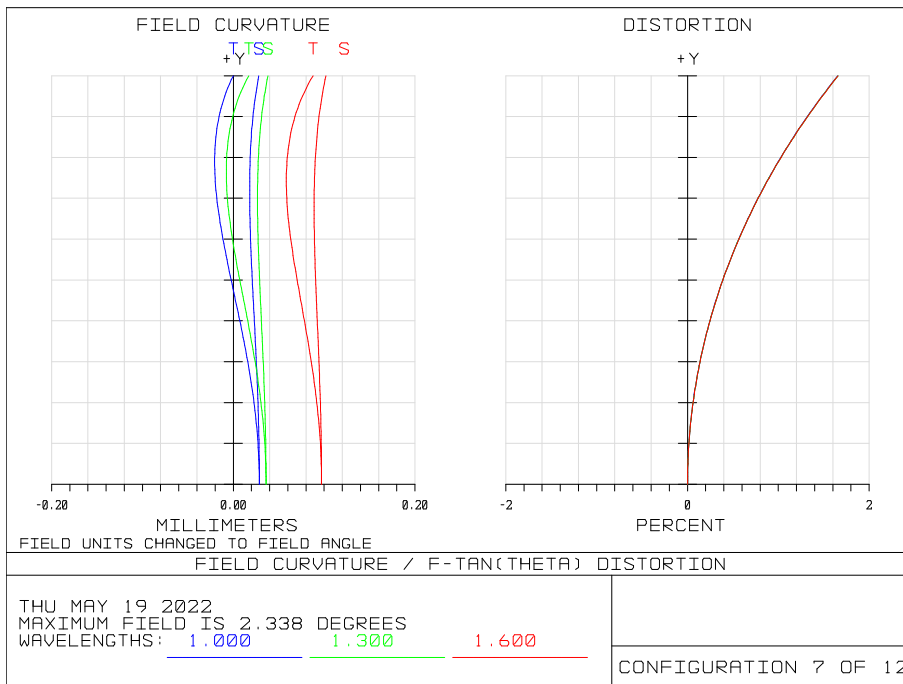


EFL 30mm

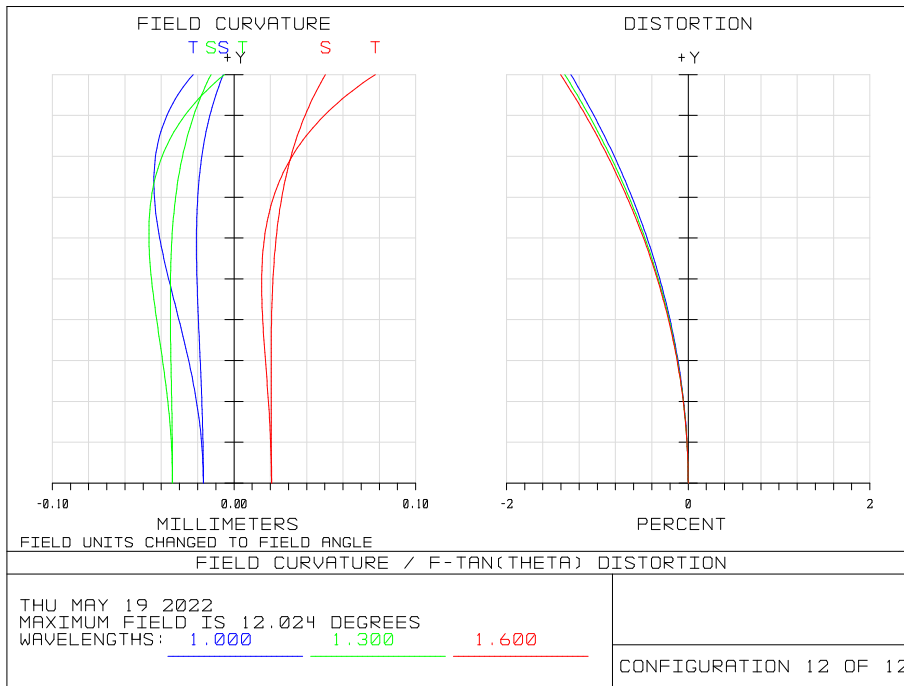
2.2 Field Curvature / Distortion



EFL 300mm

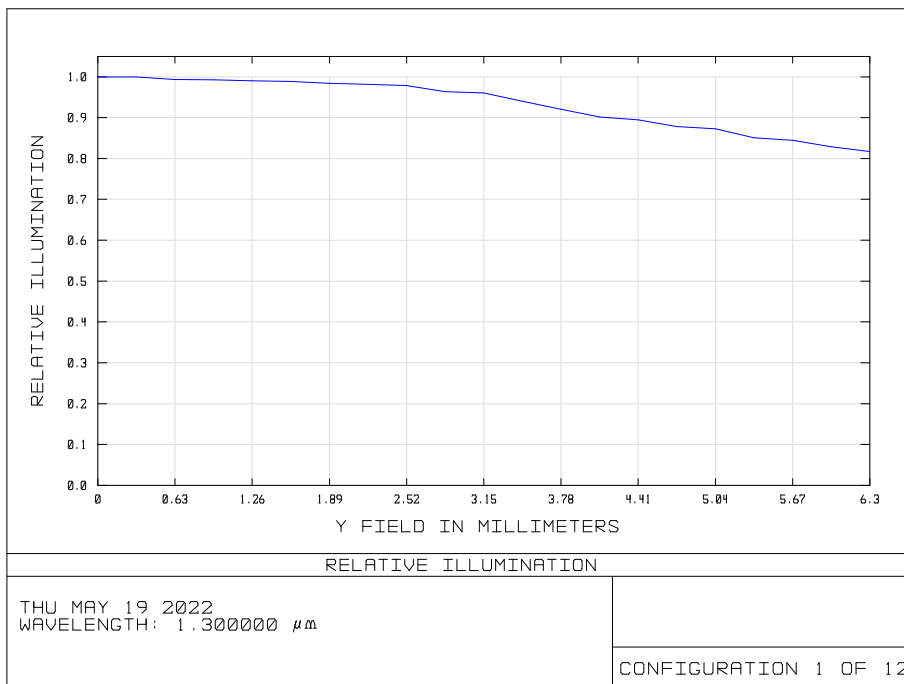


EFL 150mm

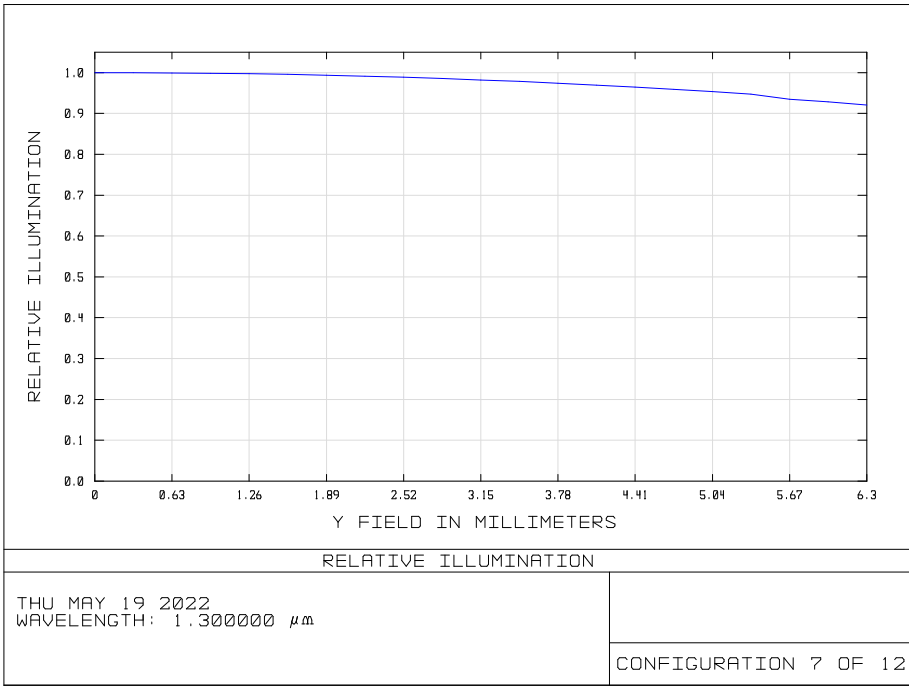


EFL 30mm

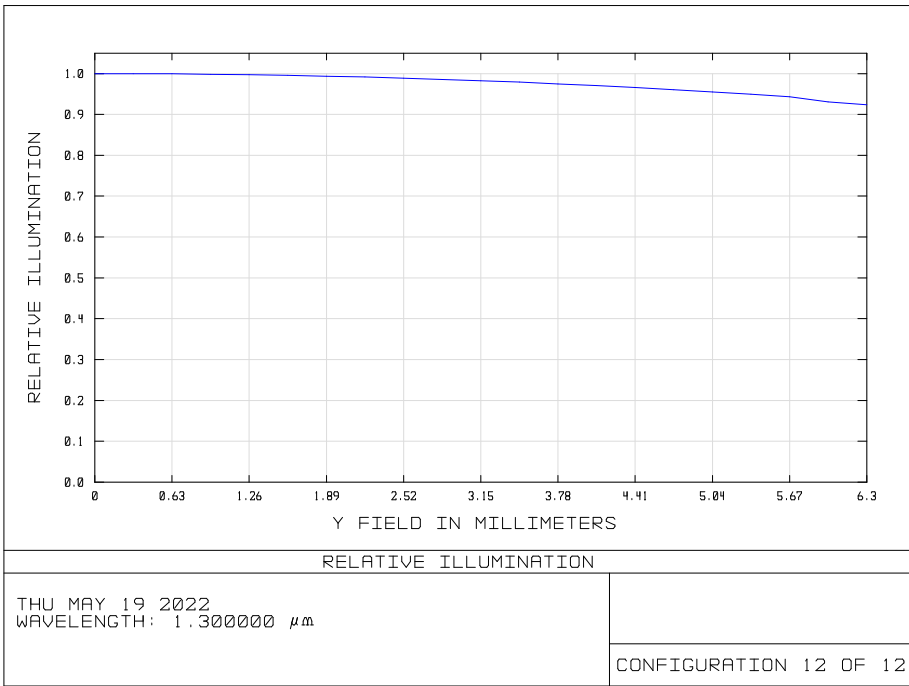
2.3 Relative Illumination



EFL 300mm



EFL 150mm



EFL 30mm