VEO_JM DIAMOND 3.33×/ F2.1

For TDI Line Scan

Key Features

- Optimized for 82 ㎜ line scan sensors
- High resolution over the entire field
- Resolves 1.86 ㎛ in object space
- With beam splitter for axial in-line illumination
- Low chromatic focal shift
- No relative illumination loss at the edge
- Best azimuth marking

Applications

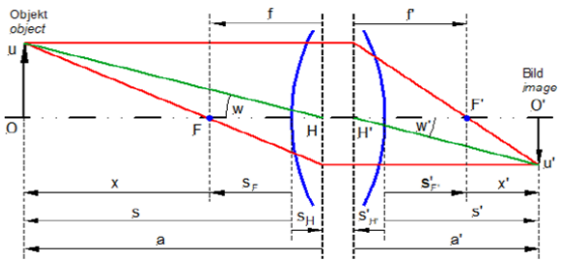
- FPD (OLED / LCD) inspection
- PCB inspection
- Wafer inspection
- High resolution defect detection
- Quality assurance systems

Performance

Parameter	Specification	Remarks
Magnification range	3.33 (3.2 ... 3.4)	
F/# range	F/2.1 ... F/4.0	Optimum F/2.1
Numerical aperture	0.180	Object Plane
Max. sensor size [㎜]	82	
Infinite F/#	F/2.1	
Focal length [㎜]	121	
Depth of field [㎛]	16.4	@ P. CoC 10um
Distortion	< 0.05%	
Wavelength [㎚]	400 ... 700	Visible
Working distance [㎜]	39 (40 ... 38)	B/S ... Object
Beam splitter size	25 × 25 × 80	
Total length [㎜]	665 ± 2	from Object to Sensor
Interface	V110 mount	0.75 pitch
Iris	Changeable	
Relative illumination	Less than 5%	
Weight [g]	3101	

Optical Parameters

Contents	Parameter	Value
Chief Ray Angle (Max.) in object plane	CRA	4.2
Effective focal length	f'eff [㎜]	121.50
Front focal length	SF [㎜]	-3.47
Back focal length	S'F' [㎜]	27.25
Principal plane distance	HH' [㎜]	-19.23
Pupil magnification	β'P	0.95
Entrance pupil position	SEP [㎜]	125.06
Exit pupil position	S'AP [㎜]	-87.57
Vertex width	Σd [㎜]	193.01



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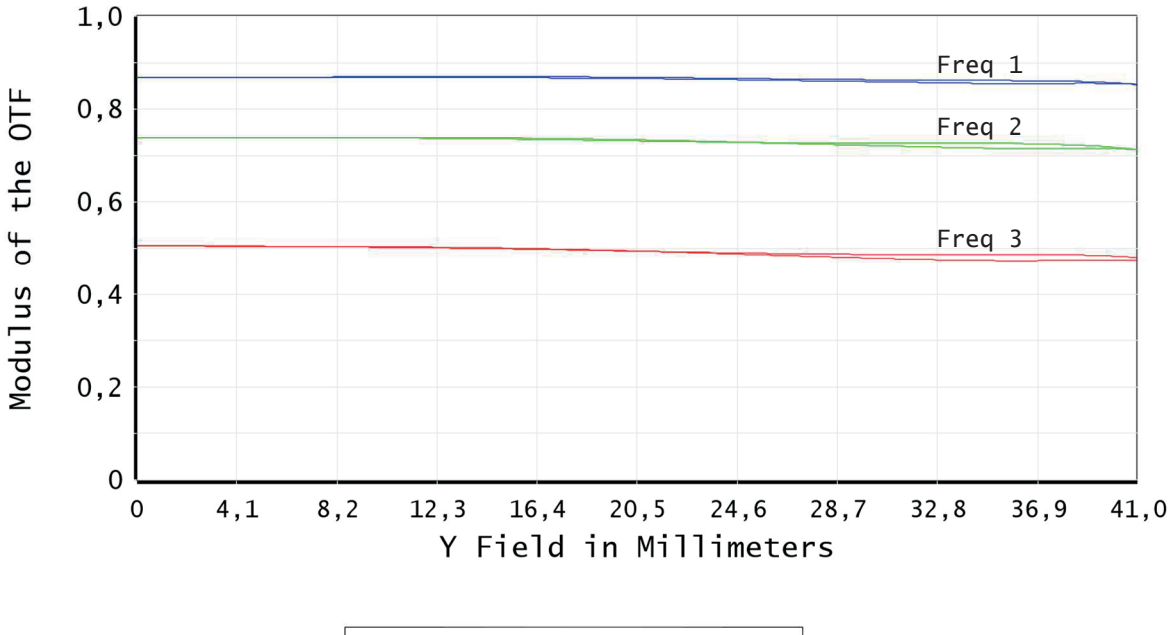
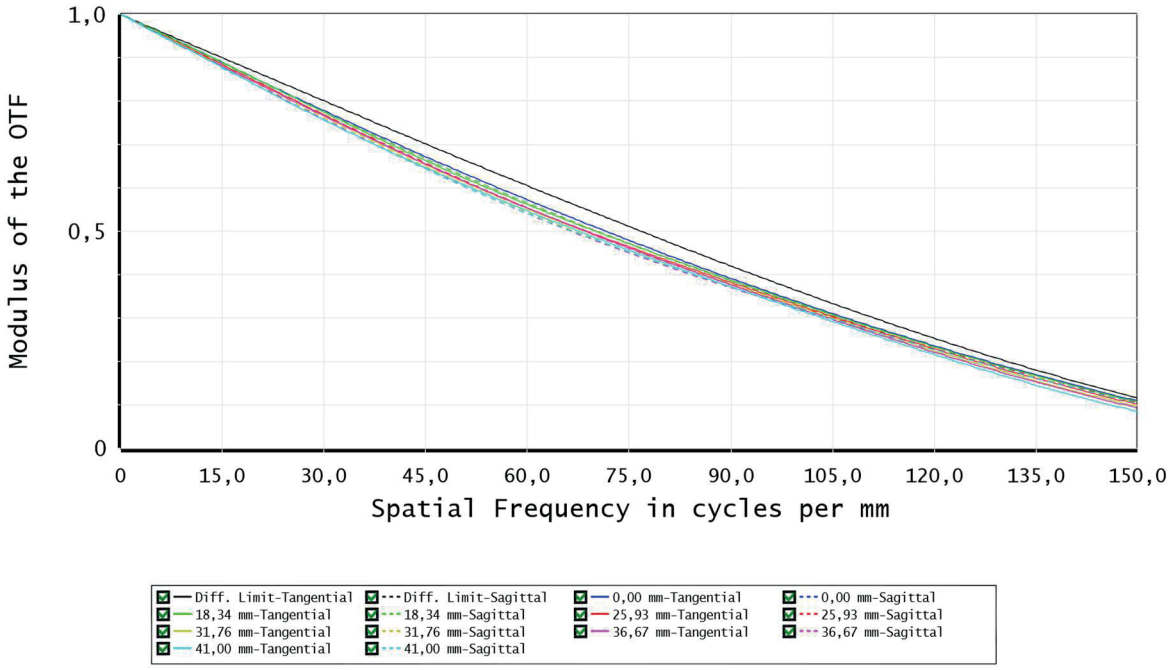
MTF

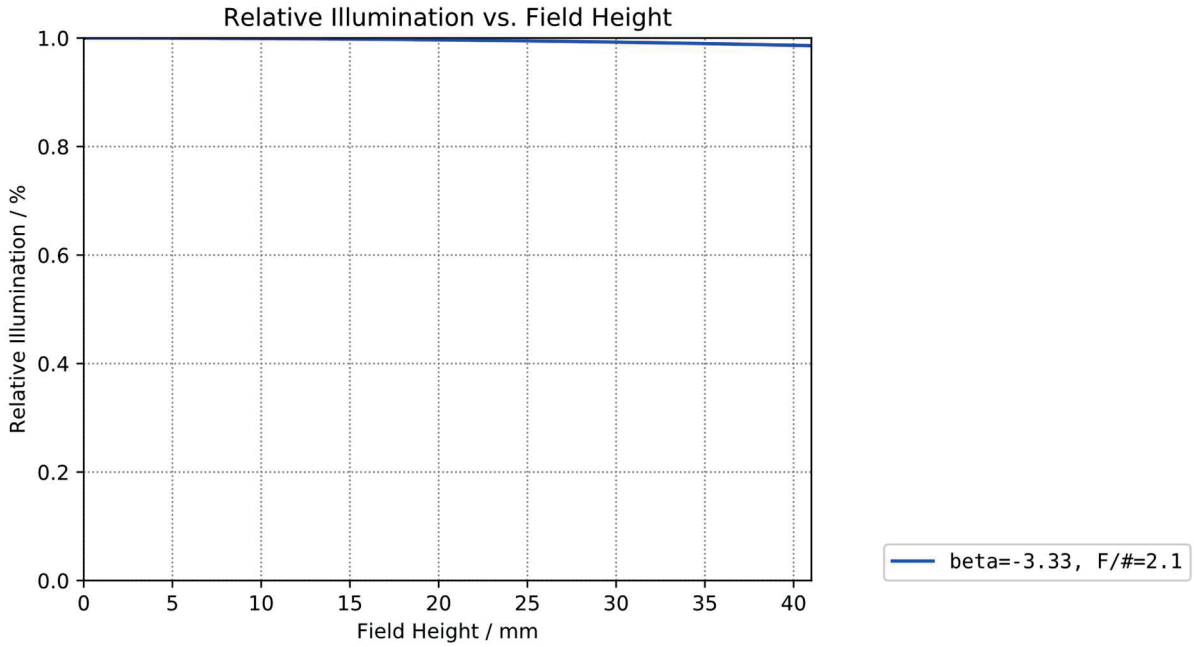


FFT MTF vs. Field
Data for 436 to 645 nm
Freq 1: 18.00 cyc/mm Freq 2: 36.00 cyc/mm Freq 3: 72.00 cyc/mm
Legend items refer to Tangential (T) / Sagittal (S) frequency

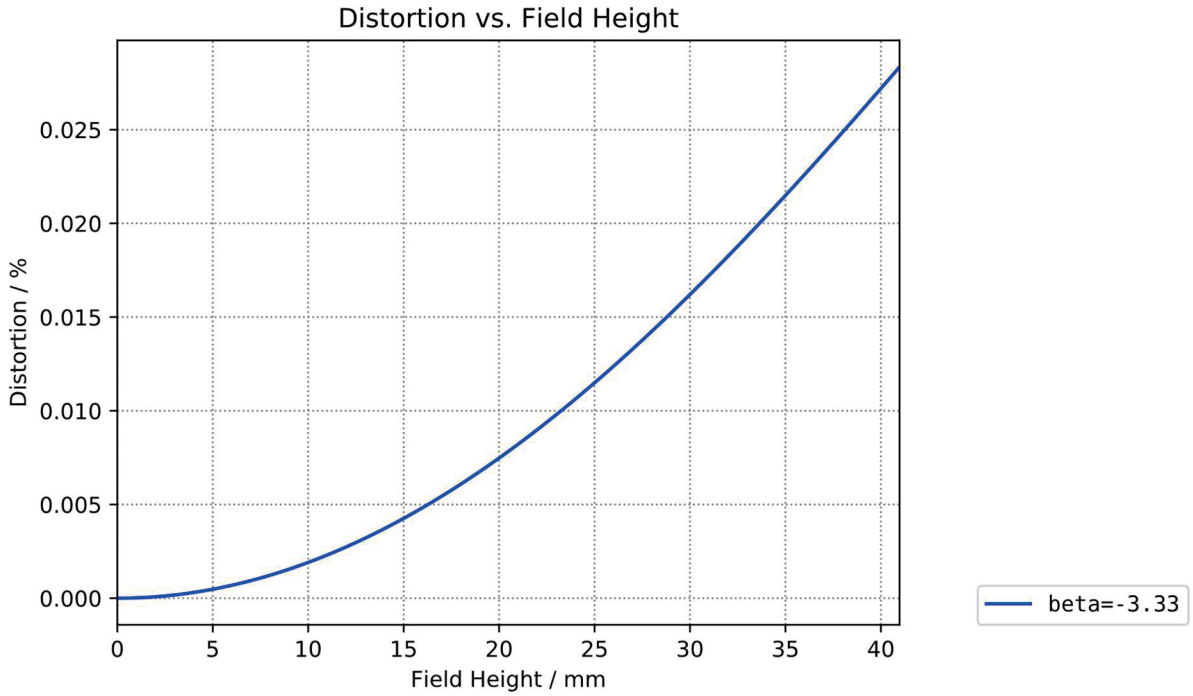


Polychromatic Diffraction MTF
Data for 436 to 645 nm
Surface: Image
Legend items refer to Field positions

Relative Illumination



Distortion



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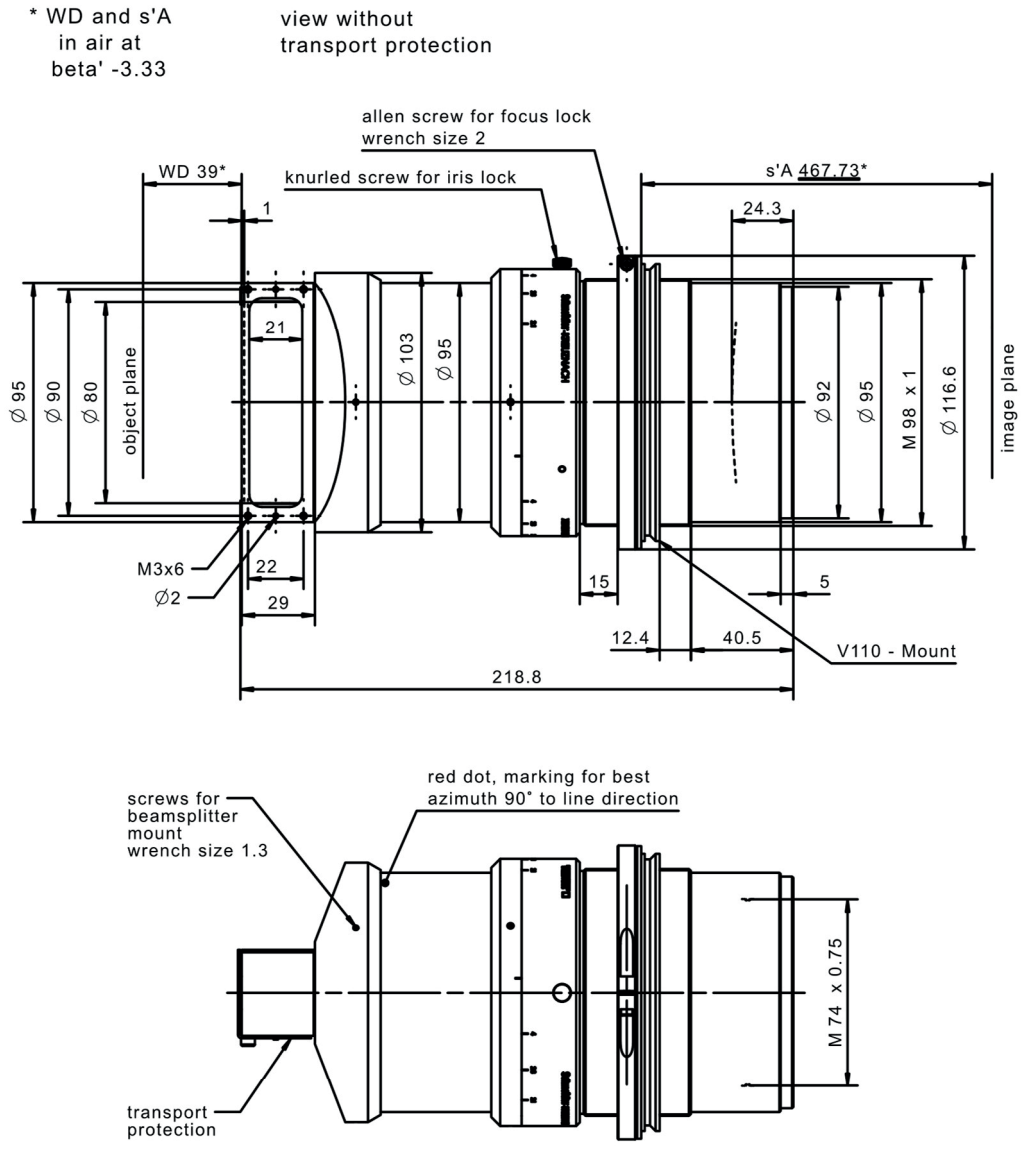
Dimensions

Unit: ㎜



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