

DLP® Pico™ Products

DLP3010 0.3 720p AR Glasses Eyepiece

Optical Reference Design

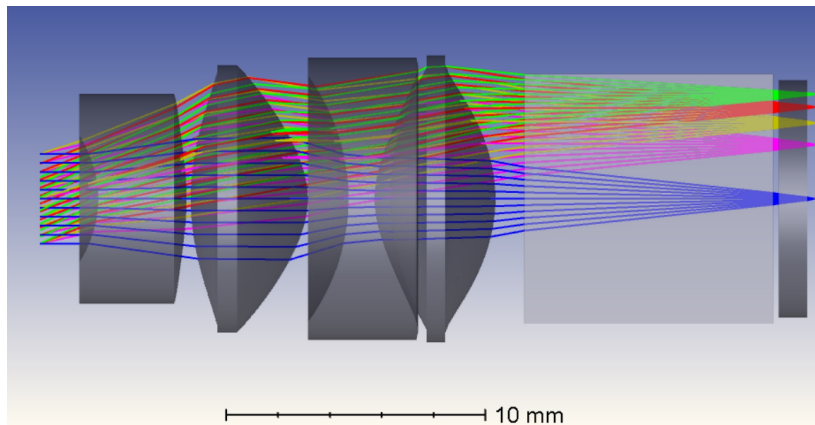
Disclaimer

- Please use this document as a reference design only, changes might apply to a later version.
- There is no tolerance or thermal analysis done on this design.

Content

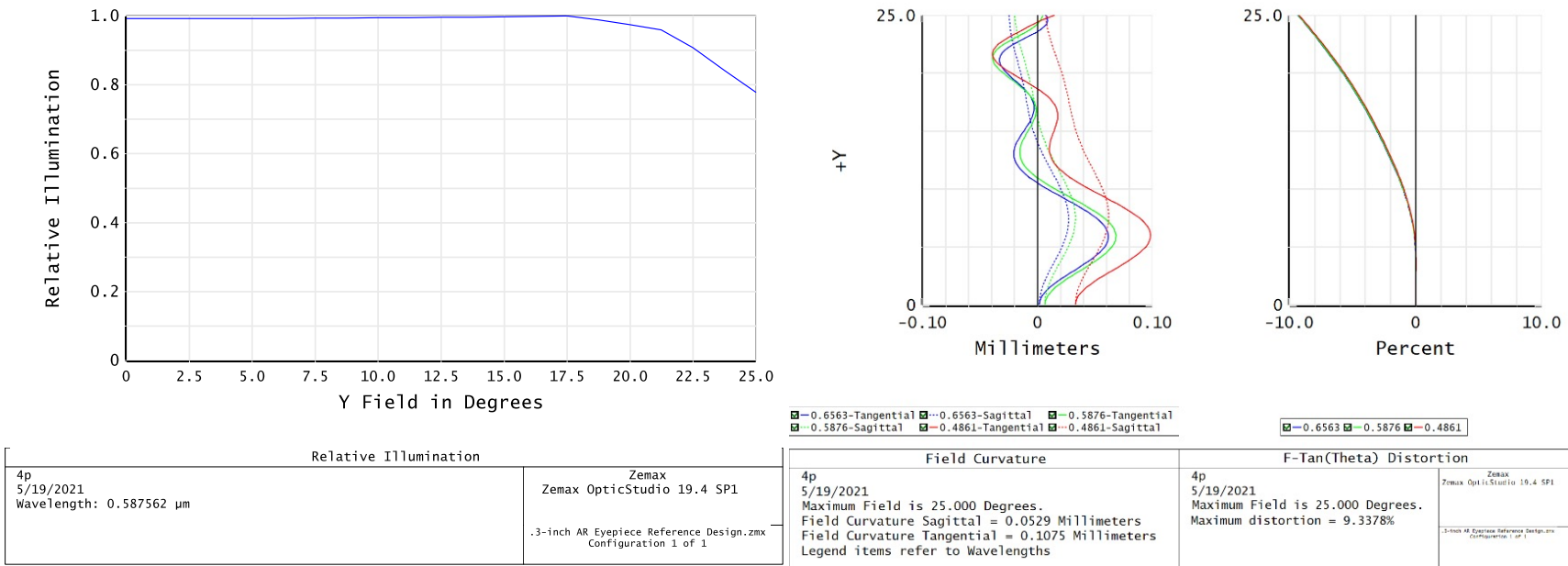
- Specifications:
 - # of micromirrors: 1280 x 720
 - Pixel pitch: 5.4 μm
 - Array size: 0.3 in
 - Projection lens: f/2.8 telecentric
- Targets:
 - Compact, high MTF
 - Provide a starting point for customer's AR glasses eyepiece design (customer to make trade-offs on performance, size, cost, manufacturability, form factor, etc.)

DLP3010 0.3 720p Eyepiece Design

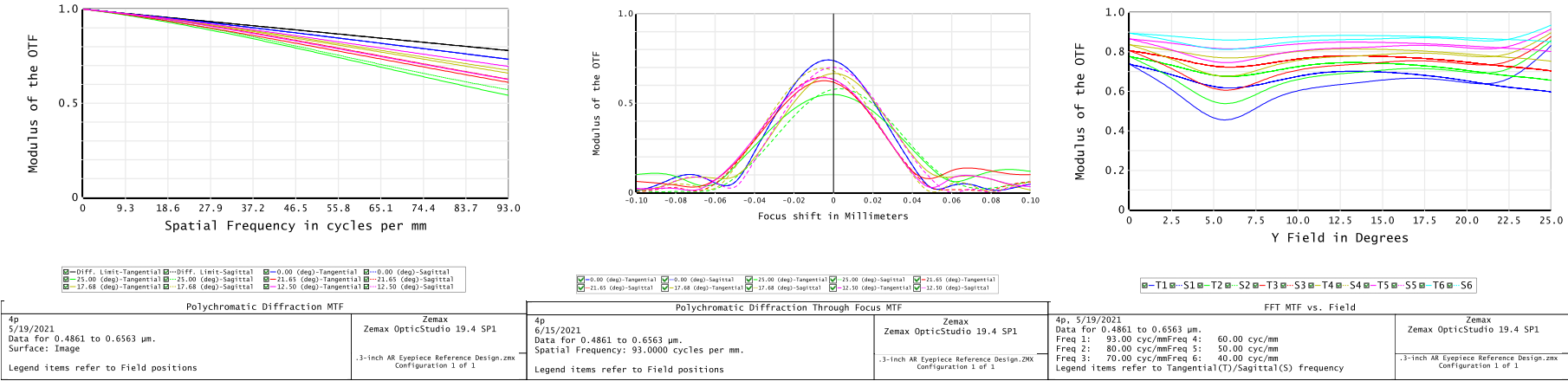


- Field of view (FOV) 50 degrees diagonal
- f/2.8
- DLP3010 0.3" DMD
- Entrance Pupil Diameter (EPD) 3mm, positioned 1.5mm in front of the first lens edge
- Eyepiece dimension 15mm x 11mm x 11mm
- Distortion 9.3%
- Telecentricity (degrees) 0/0.46/0.66/0.5/0.87
- MTF: All field >52% @ Nyquist Frequency (93 lp/mm)

Relative Illumination & Distortion



MTF



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