

The C3504006VNS Catadioptric lens was developed for a prominent client in Europe.

The lens is ruggedized, a-thermal design and has an excellent image, being diffraction limited across the entire field and three spectral ranges. The low f/number provides a bright and crisp image with little vignetting. Effective baffling provides excellent stray light rejection, good contrast and a high MTF at low spatial frequencies.

The lens has a standard c-mount.

The design is compact with the total distance from the front of the lens to image plane being 210 mm, and the outside diameter is 108 mm.

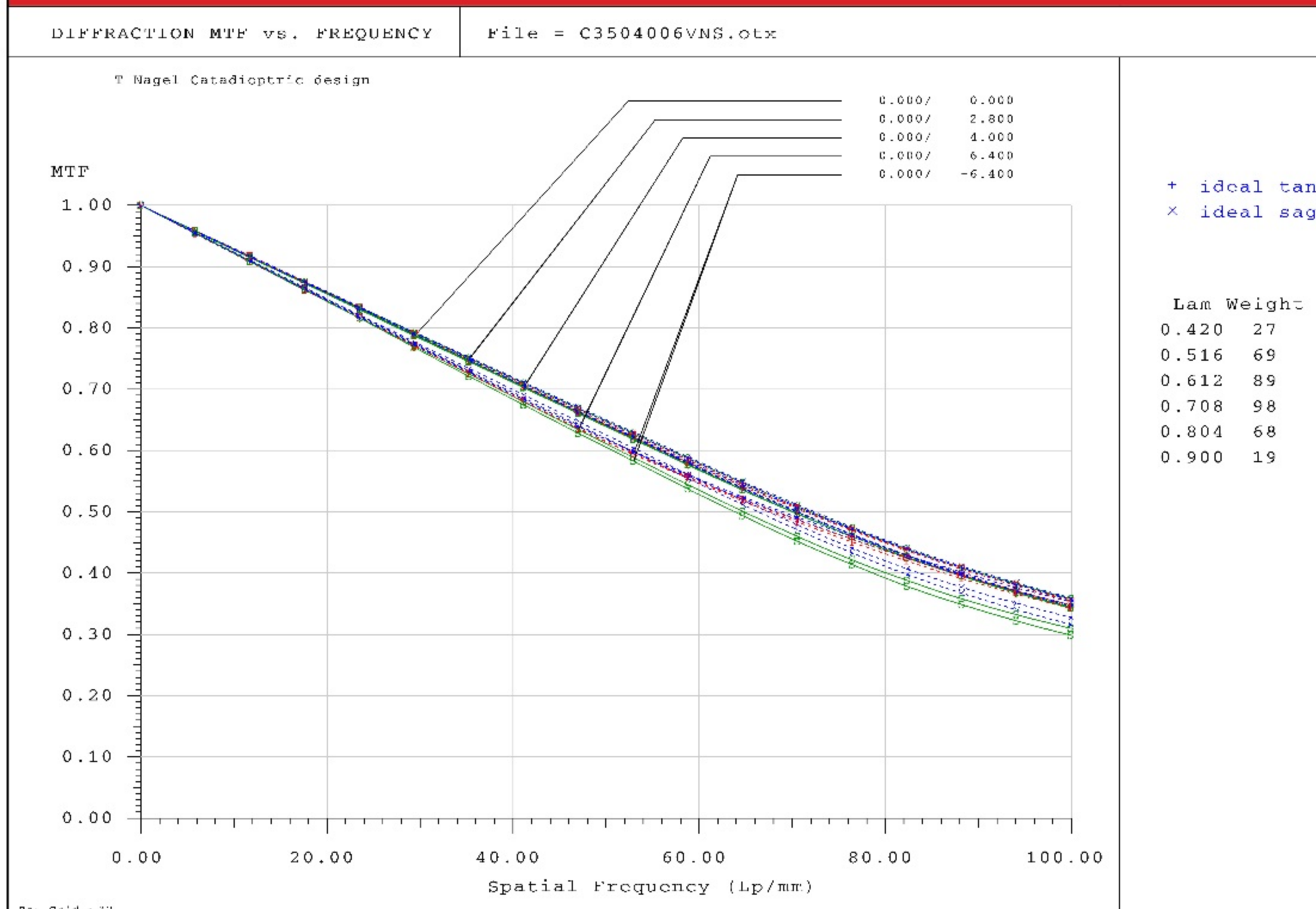
The image diameter of 12mm gives a field diameter 2°. A 2/3" CCD provides a horizontal field angle of 1.4°.

With a 5µm pixel sensor, at the Nyquist frequency of 100cy/mm, the lens achieves 30% modulation on-axis and 27% on the edge of the field.

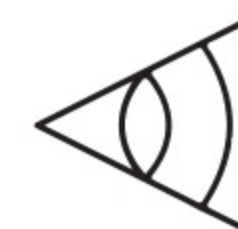
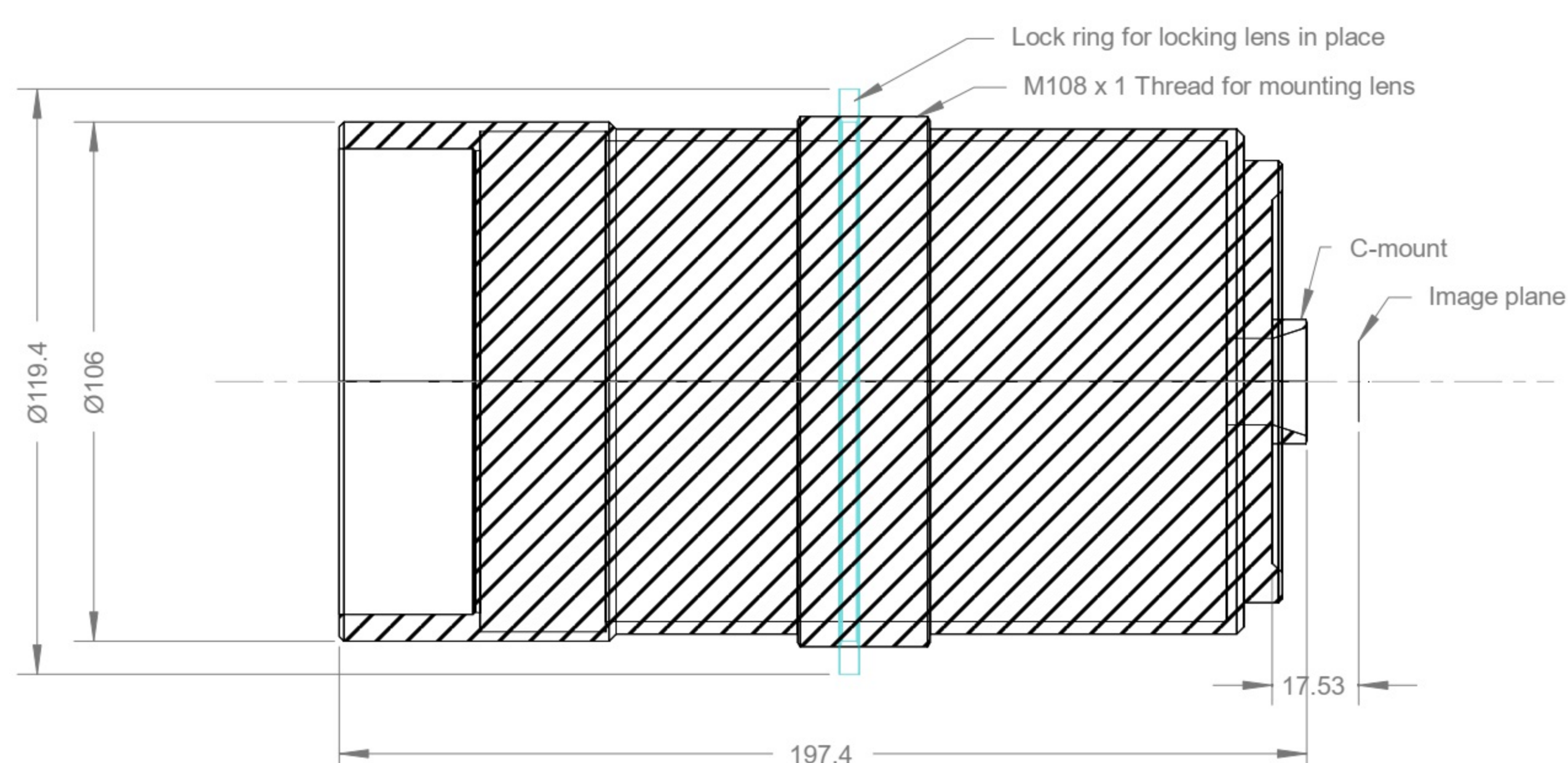
The M108x1 thread on the lens barrel provides extremely solid mounting of the lens in a flange, thereby isolating all such stresses from the optical components.



DIFFRACTION MTF vs. FREQUENCY



SPOT DIAGRAM



350mm EFL



f/4



6mm image height

Spectrum

V	N	S	M	L
0.4-0.7µm	0.7-1µm	1-2µm	3-5µm	8-12µm

Type

Zoom	Refracting	Catadioptric