

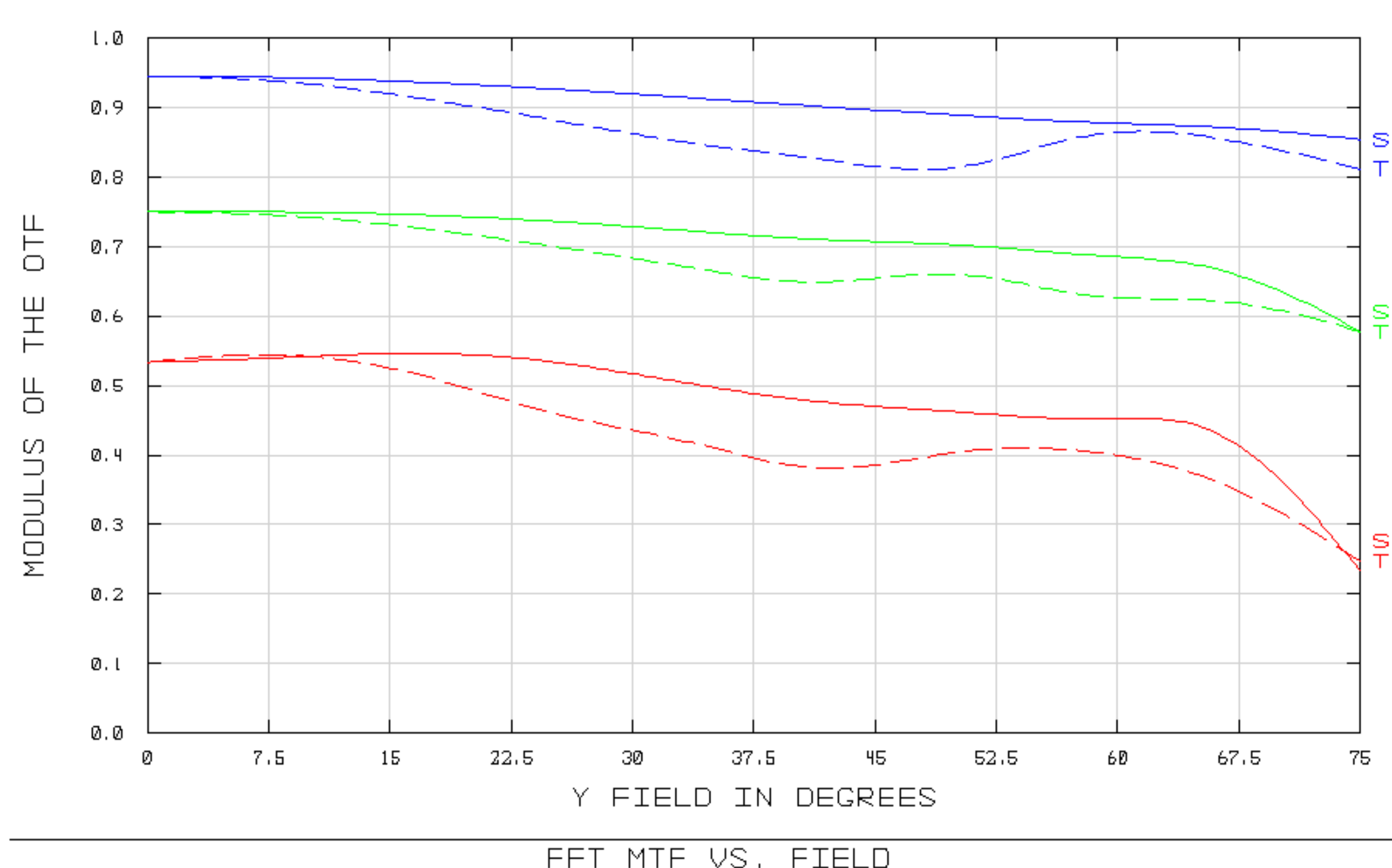
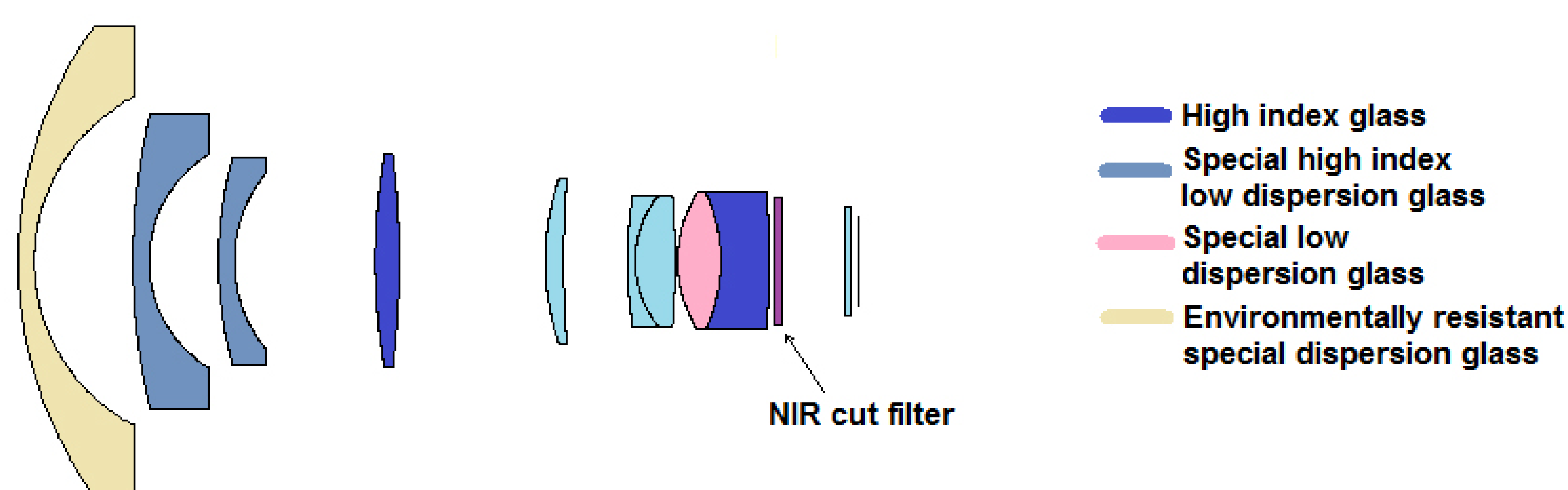
Fast fish-eye objective for automated vehicle safety

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The number of automated vehicles is expected to grow in the future due to increased reliance and effectiveness of the automated factories. These vehicles require sophisticated location techniques to reliably and safely navigate through the factories, while still taking care of random human factors related to standard factory operation. European Union level PAN-ROBOTS [1] program was started with this goal in mind.

Consortium arrived to 4.5 mm EFL fish-eye objective design to:

- 1) Minimize the number of cameras in the stereovision application
- 2) Maximize the surveillance area per camera
- 3) Offer good light collection capabilities for over night work (F/1.2 ... F/1.4)
- 4) Fish-eye objective needs less elements for above conditions and offers good resolution



17.2.2014
DATA FOR 0.4861 TO 0.6563 μm .
FREQ 1: 10.00 CYC/MM
FREQ 2: 30.00 CYC/MM
FREQ 3: 60.00 CYC/MM