

Aristarchos Wide-Field Camera A new high-resolution imager for the 2.3m Aristarchos telescope

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Abstract

The Aristarchos Wide-Field Camera (AWFC) is a new state-of-the-art wide field imager which will be used at the 2.3m Aristarchos telescope (Helmos Observatory). It's construction was funded by the PROTEAS/KRIPIS grant and its main scientific goals are: (a) Calculation of precise photometric redshifts of objects in sky fields already covered by XMM using the SDSS filters (u, g, r, i, Z, Y), and (b) Detection and/or study extended faint filamentary structures using narrow-band interference filters (Ha, [O III], [S II], [N II]). The instrument is expected to be manufactured in summer 2015 and be ready for lab tests in Automatic 2015.



Optical and Mechanical layout



Fig.1: Optical layout of the AWFC

Fig.2: Optical drawing of the AWFC



Specifications



✓ FoV:28' × 28'✓ Scale: 0.41"/pixel

✓ Main CCD
4k×4k, 15µm, QE>90%,
LN cooling

✓ Guiding CCD
1k×1k, 13µm, QE>90%,
TE cooling



Fig.3: Mechanical 3-D layout of the AWFC







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