

Abstract Submitted  
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**High Resolution IR Imaging for Alcator C-Mod**<sup>1</sup> G.A. WURDEN,  
Los Alamos National Laboratory, J.L. TERRY, MIT — We are upgrading the in-  
frared imaging system for divertor heat load studies on Alcator C-Mod by adding  
a new FLIR SC8303HD camera. The new camera is capable of 1344x784 pixel full  
frame resolution with 14-bit images at 130 Hz. Faster rates are possible by sub-  
windowing on the image. The new camera uses full camera link interface over fiber  
optics from the test cell to the control room, and the resulting data acquisition han-  
dles an image stream of 260 Mbytes/second straight to disk. At first we will employ  
a silicon wafer beam splitter, to enable measurements with both the new and old  
cameras simultaneously with the existing IR periscope. Initial data from the new  
camera and the parallel development of real-time imaging software for later use of  
this hardware on the W7-X stellarator will be discussed.

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