

**DESIGNING A GUIDED AND AUTOMATIC ANALYSIS PROCESS
FOR ANALOG AMPLIFIER RESPONSE**

by

Alex Chacko

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Science in Electrical and Computer Engineering

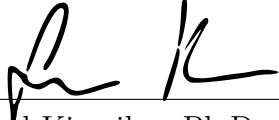
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ABSTRACT

The Infrared Scene Projector (IRSP) market has developed to require high resolution, frame rates, and dynamic range for projected videos. Within the IRSP, Infrared LEDs (IRLEDs) are driven by analog signals from a control circuit. Good IRSP performance requires fast, high-integrity analog driving signals that fall within user-defined ranges. The analog subsystem of our IRSP must therefore be capable of converting and driving these signals so as not to be a limiting factor in the system's performance. This paper describes a newly designed testing procedure for the IRSP's current analog system, as well as the lessons learned from this process used towards designing the analog component of our next generation IRSP.