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Front-End Electronics for a Zero Degree Calorimeter BRENNAN METZLER, University of Kansas — The Zero Degree Calorimeter for the CMS experiment at the LHC is designed to measure the geometry of Pb-Pb collisions and to detect photons from proton-proton collisions. It is a high frequency device that will be run with a 40MHz beam in a high radiation environment with significant electronic noise. An overview of the design of the front-end electronics system for the ZDC will be presented, including descriptions of how PMT signals will be transmitted from the calorimeter to the counting house, how we plan to split the signals and how Charge Integrating and Encoding Analog to Digital Converting (QIE ADC) chips will be utilized to digitize the signals. We will also discuss the high voltage system for the ZDC.

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