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The ComPair Silicon Tracker SEAN GRIFFIN, NASA/GSFC/CRESST, AMEGO TEAM — The All-sky Medium Energy Gamma-ray Observatory (AMEGO) mission concept is a combined Compton and pair-production telescope designed to survey the sky from 200 keV to ¿ 10 GeV with high continuum sensitivity, polarization sensitivity, and the ability to measure nuclear lines. AMEGO comprises a multi-layer double-sided silicon tracker for measuring particle tracks and the energy of Compton recoil electrons, a CZT imaging calorimeter which enables nuclear line spectroscopy, a CsI calorimeter to increase the energy range of the instrument, and a plastic scintillator anticoincidence detector for rejecting cosmic ray events. ComPair, the AMEGO prototype, is currently under development and will undergo beam tests in 2020 and a short-duration balloon flight is planned for late 2021. In this contribution, we present the prototype tracker subsystem which comprises seven layers of double-sided silicon detectors read out using a custom analogue front-end. We will also discuss the motivation behind the detector design and readout electronics in the context of the full AMEGO mission.

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