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Antenna Coupled MKID test camera on APEX telescope: on sky perfomace

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***Abstract*—Ateacma Pathfinder Experiment (APEX) telescope is located at 5100m altitude in Aacama desert in Chile. This is a 12m diameter telescope with submm quality surface located at one of the best submm sites on Earth. A large format submm direct detector camera with the goal to cover 15" field of view is being developed. It is based on Microwave Kinetic Inductance Detector (MKID) technology, especially suitable for large pixel count. In order to investigate performance of MKID technology in demanding telescope environment, a small test camera of 72pixels at 350 GHz atmospheric window has been built, and tested at the APEX telescope. Here we report, the camera construction, read out scheme, and results of lab tests and on the sky performance of first successful run. We will also discuss in detail an antenna coupled MKID design.**