

THE SKARAB DESIGN: ISSUES ENCOUNTERED AND LESSONS LEARNT

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MeerKAT has been successfully integrated with the latest SKARAB hardware processing units and has started to yield exciting scientific results. The SKARAB performs the correlator beamformer signal processing functions needed for MeerKAT. It is currently capable of implementing a 64 antenna, 32K FFT F-engine and a 64 antenna correlator X-engine. A considerable amount of effort has been placed into getting the SKARAB firmware and hardware optimised for the signal processing functions utilised for the MeerKAT telescope. This presentation will give an overview of the issues encountered, lessons learnt and what could be done differently for the next generation CASPER hardware e.g. SKARAB2.