

# Reflector-Feed Design

- Off axis vs on axis
- Layout of Cylinder area
- edge illumination
- Feed design (dipole or not)
- Sum feeds
- reflector mechanical design

## Questions :

- \* What is the electronic (amplifier noise) we can reach (5-10 K ?) and what would be the system temperature ? Can we gain a factor 2 in system temperature ( 50 K -> 25 K ??)
- \* LO or undersampling, how do we replace LO phase modulation, can we make the filters good enough. LO good if we want to send the signal over long distance. LO would make the system frequency agile
  - \* What would be good enough
- \* Can we trade bandwidth ( 250 MHz -> 50 MHz) against sampling all receivers ?
- \* Correlator or Beamformer design - digital signal preprocessing
  - \* FFT with or without padding
  - \* Both with timeshare



- \* Calibration scheme

- \* How well do we have to do

- \* Foregrounds/Radio Point Source Subtraction



## \* Prototype

- \* Detect LSS or remove background

- \* Calibration

- \* Testbed

- \* 700 or 1100MHz

- \* What site, layout

