GRASP Results PICO TeamX

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Notes on Analysis

- Far sidelobes are done with a resolution of 1 deg
- Calculation is accurate to -120 dB from peak of main lobe
- Calculation assumes horn, two reflectors, and stop aperture only. No other shields or spacecraft are included.
- Stop aperture is simulated as an infinite conducting sheet.

Coordinates

- All beam maps / cuts are in polar coordinates centered on the primary mirror.
- Phi is in the xy plane, 0 at the +X axis, and increasing toward + Y (which follows the right hand rule)
- 'X polarization' is in the xz plane.
- 'Y polarization' is in the yz plane



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Sidelobe response; phi=0



Sidelobe response; phi=90



Illumination on Primary mirror 150 GHz Center Feed



Job_25 \rightarrow center_Feed_surface_grid_poly_1 \rightarrow |E| \rightarrow 150.0 GHz

Illumination on Primary mirror 21 GHz Top Feed



note: feed not tilted relative to focal plane

Illumination on Primary mirror 21 GHz Bottom Feed



note: feed not tilted relative to focal plane