

Figure 4. Tunable radiometer geometric configuration. (Top) In sky versus cold load measurements one antenna points into the cold load while the other views the zenith through the large conical ground shield. Then the radiometer is rotated 180° so that the antennas exchange places. (Bottom) For atmospheric scans the antennas point horizontally and the reflectors and side shields are tilted in turn: Large end screens (not shown) are fixed to the ground and do not move.

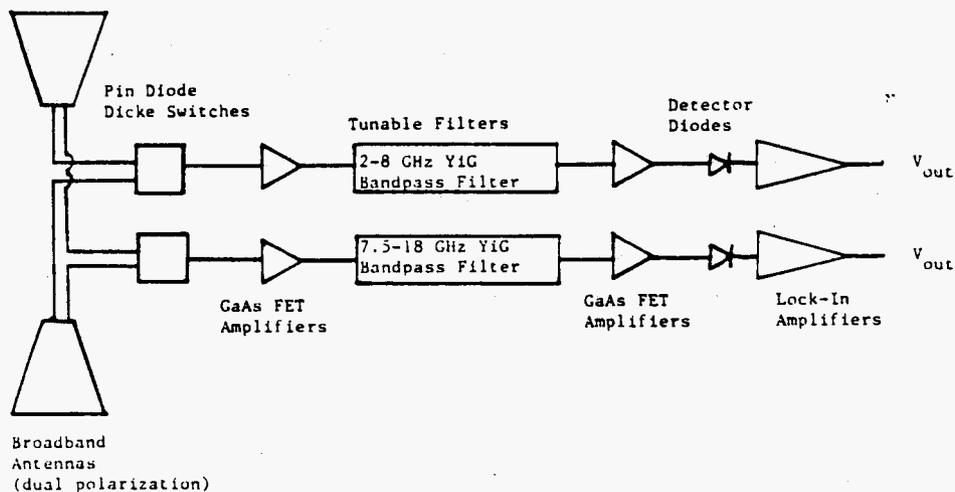


Figure 5. Tunable Radiometer Receivers Circuit Schematic. The 2-8 GHz and 7.5-18 GHz receivers share a common housing and the two antennas. The Dicke switches are synchronous with opposite phase, so that the receivers are always connected to separate antennas.