



A 77 – 117 GHz Cryogenically Cooled Receiver for Radioastronomy

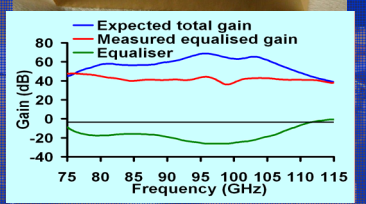
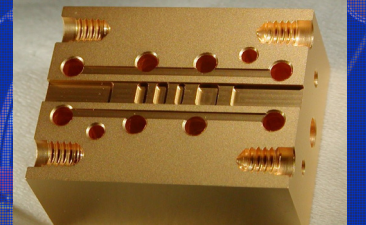
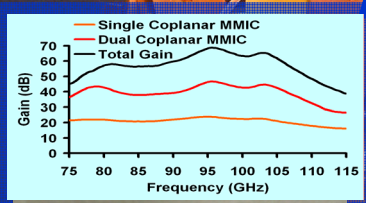
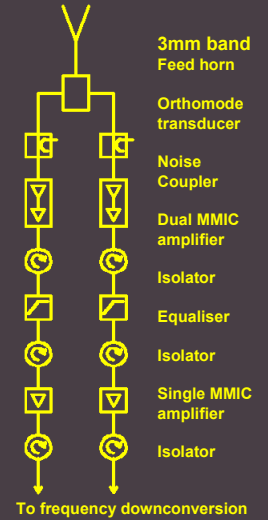
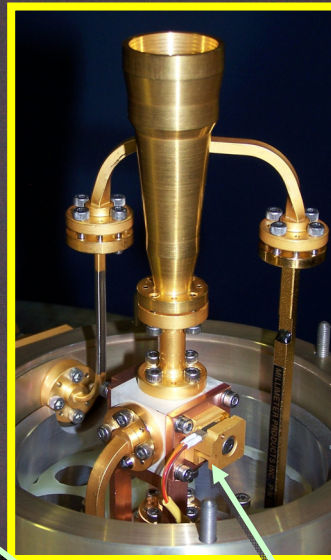


G. Moorey, R. Bolton, A. Dunning, R. Gough, H. Kanoniuk and L. Reilly

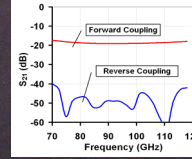
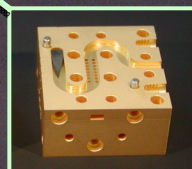
The Australia Telescope 22-metre dish antenna at Mopra, near Coonabarabran, is capable of operating at frequencies in excess of 115 GHz.

The new cryogenically cooled receiver system installed at Mopra covers both the 12 mm band and an extended 3 mm band: 77 to 117 GHz.

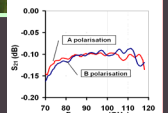
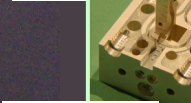
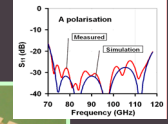
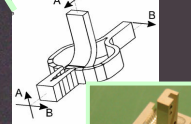
The Mopra receiver system is similar to the receiver systems installed on the Australia Telescope Compact Array antennas, situated near Narrabri, NSW, but incorporates a number of new components which were designed so the receiver could operate over the extended 3mm band.



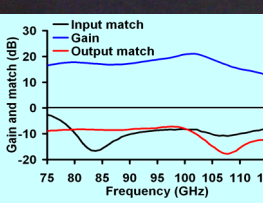
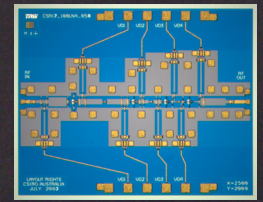
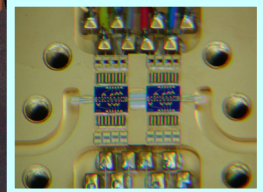
Gain Equaliser



Noise Coupler



Orthomode Transducer



Low-Noise Amplifier

