

The Design and Implementation of Quasi-Optics for Dual Channel Receiver of 100/150GHz Band

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Dual channel receiver of quasi-optic system has been designed by using frequency method for wide band operation. The quasi-optic system for each channel consists of corrugated feed horn, teflon lens, ellipsoidal mirror and SSB filter, respectively. We have measured the quasi-optic system and their components using the beam measurement system which is developed by us. The calculated beam parameters, such as the beam radius, the position and the size of beam waist are compared with measured values. It is shown that the agreement with theory is quite satisfactory.