

# **A Single-Sideband Filter for 100 GHz Band SIS Receiver of DRAO**

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A quasi-optical system and a single-sideband filter for 100 GHz band SIS receiver have been developed. The quasi-optical system was designed using a method of frequency-independent matching of Gaussian beams. The properties of the single-sideband filter are the same as those of Michelson polarizing interferometer. This paper describes the quasi-optical system and the single-sideband filter for 85-115 GHz SIS receiver, and shows design technique details.