

# Abstracts

## Noise Figures of Reflex Klystron Amplifiers

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*K. Ishii. "Noise Figures of Reflex Klystron Amplifiers." 1960 *Transactions on Microwave Theory and Techniques* 8.3 (May 1960 [T-MTT]): 291-294.*

The noise figure of the 2K25 reflex klystron amplifier was investigated. The noise figure of the reflex klystron amplifier depends on operating frequency, electronic impedance, circuit impedance, and operating electronic mode. Experimental results show that a noise figure of 5 db is possible under particularly carefully adjusted conditions. In order to obtain the low-noise figure, careful electronic tuning and the impedance adjustments are particularly important. Generally, relatively low noise figures were obtained when the electronic tuning was good. Noise figures of cascaded reflex klystron amplifiers were also investigated experimentally. Noise figures of the cascaded amplifier were generally higher than that of the single stage amplifier, but still low enough to use this reflex klystron amplifiers as a preamplifier of a microwave receiver to increase the sensitivity of the receiving system.

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