

Abstracts

Elementary Considerations of Noise Performance

R. Adler, R.S. Engelbrecht, H.A. Haus, M.T. Lebenbaum and W.W. Mumford. "Elementary Considerations of Noise Performance." 1961 PGM TT National Symposium Digest 61.1 (1961 [MWSYM]): 53-57.

It is generally recognized that the output noise of a receiving system contains components contributed not only by the generator at the input of the receiving system but also by the receiver itself. Furthermore, the evaluation of the output signal-to-noise ratio of the system will depend not only on the output noise but also on the nature of the signal that is impressed on the input of the receiver and that appears in the output utilization circuit. Hence, any meaningful evaluation of noise performance of receivers when they are used in a particular system must include considerations, under operating conditions, of the sources that contribute to the output noise, the bandwidth and gain of the receiving system in all of its responses, the nature of the signal and the efficacy of the output utilization circuit. It is evident that no single number can describe completely how well a given receiver will perform in all kinds of systems.

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