Abstracts

Some Pitfalls in Millimeter-Wave Noise Measurements Utilizing a Cross-Correlation Receiver

A.D. Sutherland and A. Van der Ziel. "Some Pitfalls in Millimeter-Wave Noise Measurements Utilizing a Cross-Correlation Receiver." 1982 Transactions on Microwave Theory and Techniques 30.5 (May 1982 [T-MTT]): 715-718.

It is shown that the use of a hybrid junction as the power splitter in a cross-correlation receiver for millimeter-wave (94-GHz) noise measurements at low temperature (2 K) introduces an unwanted source of noise which defeats the purpose of the measurements. The same is the case when isolators are introduced to prevent cross-coupling of the noise from the two receiver channels.

❑ Return to main document.