

Abstracts

Ultrafast analog-to-digital converter using resonant-tunneling ternary quantizers

T. Itoh, T. Waho, J. Osaka, H. Yokoyama and M. Yamamoto. "Ultrafast analog-to-digital converter using resonant-tunneling ternary quantizers." 1998 MTT-S International Microwave Symposium Digest 98.1 (1998 Vol. 1 [MWSYM]): 197-200.

We study an analog-to-digital converter (ADC) that uses ternary quantizers consisting of resonant-tunneling diodes and HEMTs. This paper explains the ADC design and presents experimental results. A resonant-tunneling ternary quantizer operates at 10 GHz and a 2-bit ADC operates at 5 GHz.

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