

Abstracts

A 0.15-/spl mu/m GaAs MHEMT transimpedance amplifier IC for 40-Gb/s applications

C.F. Campbell, M.S. Heins, M.Y. Kao, M.E. Muir and J.M. Carroll. "A 0.15-/spl mu/m GaAs MHEMT transimpedance amplifier IC for 40-Gb/s applications." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. 1 [MWSYM]): 79-82 vol.1.

The design and performance of a 0.15-/spl mu/m MHEMT transimpedance amplifier IC suitable for 40-Gb/s receiver applications is presented. Experimental results for the circuit demonstrate 263/spl Omega/ of transimpedance and 42.6 GHz 3dB-bandwidth with 0.075 pF of photodiode capacitance connected at the input. The IC dissipates 180 mW of power from a single +6V supply and has a die area of 0.72 mm/sup 2/.

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