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Abstract: This article presents the design and test of a receiver front end aimed at LMDS applications at 28.5 GHz. It presents a system-level design after which the receiver was designed. The receiver comprises an LNA, quadrature mixer and quadrature local oscillator. Experimental results at 24 GHz center frequency show a conversion voltage gain of 15 dB and conversion noise figure of 14 5 dB. The receiver operates from a 2 5 V power supply with a total current consumption of 31 mA. (C) 2010 Wiley Periodicals, Inc. Microwave Opt Technol Lett 52 736-740, 2010. Published online in Wiley InterScience (www.interscience.wiley.com) DOI 10.1002/mop.25010.

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