Abstracts

Design of high speed master-slave D-type flip-flop in InP DHBT technology (2002 Vol. II [MWSYM])

A.-E. Kasbari, P. Andre, A. Konczykowska, M. Riet, S. Blayac, H. Ouslimani and J. Godin. "Design of high speed master-slave D-type flip-flop in InP DHBT technology (2002 Vol. II [MWSYM])." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 1057-1060 vol.2.

In this paper, we present some design problems of the high speed master-slave D-type flip-flop (MS D-FF). Essential to long haul optical fiber communication systems, this circuit is critical since it operates at the highest clock frequency for a given bit rate. We discuss specific aspects of electrical design of such a circuit and underline some important points of the layout of gigabit circuits. The MS D-FF was fabricated in our self-aligned InP DHBT technology. On wafer measurements show correct operation at 40 Gb/s.

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