

A 20GHz Silicon Microwave Monolithic Integrated Circuits Process and a 7.4GHz Frequency Divider

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A Silicon Microwave Monolithic Integrated Circuits process named "DNP-III" has been developed without self-alignment technique. By using "DNP-III" process. NPN transistors with 0.6 μ m width and 0.1 μ m depth emitter achieved $f_{sub T}$ of 20 GHz. Maximum dividing frequency (F_{max}) of 7.4GHz at $V_{cc}=6V$ was also achieved for 1/2 prescaler with master slave T-type flip-flop.

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