

Title (en)  
**MULTIPLIER CIRCUIT**

Title (de)  
**MULTIPLIZIERERSCHALTUNG**

Title (fr)  
**CIRCUIT MULTIPLICATEUR**

Publication  
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Application  
**EP 02753008 A 20020710**

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Abstract (en)  
[origin: WO03009078A2] The invention relates to a multiplier circuit comprising a multiplier core that contains two cross-coupled transistor pairs (2, 3; 4, 5). According to the invention, a first and a second signal source (10, 11, 13, 14), which are controlled by a first or second signal that is to be multiplied, are respectively connected to control inputs of the transistors (2 to 5) of the multiplier core for inverting the current between the transistor pairs (2, 3; 4, 5), or in a differentiating manner between the transistors (2, 4; 3, 5) of the differential amplifiers. The high degree of symmetry that can be achieved for the input gates of the circuit permits a particularly precise multiplication with excellent linearity. The inventive multiplier can be used, for example, as a high-frequency mixer circuit or as a 90 DEG phase-detector circuit.

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