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(54) **MONOLITHIC MICROWAVE INTEGRATED CIRCUITS TOLERANT TO ELECTRICAL OVERSTRESS**

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(57) **ABSTRACT**

Monolithic microwave integrated circuits (MMICs) tolerant to electrical overstress are provided. In certain embodiments, a MMIC includes a signal pad that receives a radio frequency (RF) signal, and an RF circuit coupled to the RF signal pad. The RF circuit includes a transistor layout, an input field-effect transistor (FET) implemented using a first portion of a plurality of gate fingers of the transistor layout, and an embedded protection device electrically connected between a gate and a source of the input FET and implemented using a second portion of the plurality of gate fingers. The MMIC is tolerant to electrical overstress events, such as field-induced charged-device model (FICDM) events.