

Patent Title:	Wideband power attenuators in RF-MEMS technology
FBK Center:	CMM
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Abstract:	A wideband power attenuator in RF-MEMS multilayer technology, for attenuating an electromagnetic signal, includes an upper layer with two RF ground planes, and between said two RF ground planes a central RF-MEMS movable switch as a floating electrode, an RF input, an RF output of an RF line running across the attenuator, a number of lower layers including in sequence: a ground floor of an electrically insulating substrate; two DC biasing electrodes to electrostatically control said movable switch, and DC biasing lines to feed the DC biasing electrodes; two DC-RF decoupling resistors, each decoupling resistor being connected on one side to respective terminals of said movable switch, and on the other side to respective one of the two RF ground planes; a resistive load adapted to be connected to the RF line to attenuate the electromagnetic signal on the basis of the floating movable switch configuration, between a non-contact RF position and a contact RF position with said RF line.