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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

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Michelle K. Lee

Deputy Director of the United States Patent and Trademark Office



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(12) **United States Patent**
Uzunov et al.

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(54) **FILTER CIRCUIT**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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See application file for complete search history.

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(57) **ABSTRACT**

A circuit and method for filtering a signal. An amplifier receives an input signal and generates a differential output signal. A first resonator having series and parallel resonant frequencies is connected to the positive output port of the amplifier. A second resonator having series and parallel resonant frequencies is connected to the negative output port of the amplifier. The first and second resonators are coupled at a connection point. A buffering device receives the combined outputs of the resonators and outputs a filtered signal. The filtering method receives signals and passes them through the elements of the filter circuit to generate a filtered output signal.

42 Claims, 9 Drawing Sheets

