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(54) **FILTERING DEVICE AND METHOD**

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(71) Applicant: **STMicroelectronics France**,  
Montrouge (FR)

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(72) Inventors: **Eric Andre**, Hurtieres (FR); **Lionel**  
**Vogt**, La Rochette (FR)

(57) **ABSTRACT**

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In embodiments, a radio frequency transmitter comprising at least one filtering circuit is provided. The filtering circuit includes a series/parallel shift register comprising a binary input and N binary outputs, with N being an integer greater than or equal to OSR, OSR being an integer greater than or equal to 2. The binary outputs ranging from 0 to N-1, the register receiving a binary data signal at a data frequency on its input and implementing shifts on the N binary outputs at a frequency equal to a multiplier of the data frequency and OSR. The filtering circuit further comprising a first circuit defined by N coefficients  $C_i$ . For each non-zero coefficient  $C_i$ , a signal determined by the coefficient  $C_i$  and by the corresponding one of the binary outputs. The filtering circuit further comprising and an adder circuit delivering an output equal to the sum of analog signals.

