

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2024/0178819 A1 Wang et al.

May 30, 2024

(43) **Pub. Date:** 

### (54) LINEAR DECIMATION FILTERS FOR INCREMENTAL DELTA-SIGMA ANALOG TO DIGITAL CONVERTERS

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(21) Appl. No.: 18/509,481

(22) Filed: Nov. 15, 2023

### Related U.S. Application Data

(60) Provisional application No. 63/426,232, filed on Nov. 17, 2022.

#### **Publication Classification**

Int. Cl. (51)H03H 17/02 (2006.01)H03K 19/20 (2006.01)

(52)U.S. Cl. CPC ...... H03H 17/02 (2013.01); H03K 19/20 (2013.01)

#### (57)ABSTRACT

Linear decimation filters for incremental delta-sigma analog to digital converters are provided with a data rate signal input; a digital signal input; a weight generator connected to the signal input to generate a weight signal via a weight signal output; an adder having a digital signal output, a first addition input connected to the weight signal output, and a second addition input connected to the digital signal output; and an AND-gate having a first input connected to the input data rate signal input and a second input connected to the digital signal input to produce a logical output that gates output from the digital signal output of the adder.

