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(54) **BULK ACOUSTIC WAVE FILTER WITH
SECOND HARMONIC SUPPRESSION**

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ABSTRACT

Aspects of this disclosure relate to acoustic wave filters with second harmonic emission suppression. In an embodiment, an acoustic wave filter includes a first pair of bulk acoustic wave resonators in anti-series with each other and a second pair of bulk acoustic wave resonators in anti-series with each other. The second pair of bulk acoustic wave resonators has reverse electrode polarization relative to the first pair of bulk acoustic wave resonators. The first pair of bulk acoustic wave resonators is in series with the second pair of bulk acoustic wave resonators. Other embodiments of acoustic wave filters with second harmonic emission suppression are disclosed. Related multiplexers, radio frequency modules, wireless communication devices, and methods are disclosed.

