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YASUDA et al.(10) **Pub. No.: US 2022/0352864 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **RESONANT ELEMENT, FILTER, AND
DIPLEXER****Publication Classification**(71) Applicant: **Murata Manufacturing Co., Ltd.**,
Nagaokakyo-shi (JP)(72) Inventors: **Shoma YASUDA**, Nagaokakyo-shi
(JP); **Hiroto MOTOYAMA**,
Nagaokakyo-shi (JP); **Masayuki
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2001/0085 (2013.01)(21) Appl. No.: **17/865,441**(22) Filed: **Jul. 15, 2022****Related U.S. Application Data**(63) Continuation of application No. 17/239,937, filed on
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ABSTRACT

A resonant element includes first, second, and third plane electrodes, a first via electrode defining a first inductor, a second inductor, and a third inductor. The first via electrode connects the first plane electrode and the second plane electrode, and each of the second inductor and the third inductor connects the first plane electrode and the third plane electrode. The third plane electrode defines a first capacitor together with the second plane electrode, the second inductor includes second via electrodes, and the third inductor includes third via electrodes. Each of the second via electrodes and the third via electrodes is a columnar conductor extending in the extending direction of the first via electrode.

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