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(54) IMPEDANCE MATCHING CIRCUIT AND AN IMPEDANCE MATCHING ELEMENT

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(57) **ABSTRACT**

Impedance matching circuits, impedance matching elements, and radio communication circuits are provided in this disclosure. The impedance matching circuit may include a first impedance matching element which is configured to radio communication circuit may include a modulator configured to receive an unbalanced input signal from a first input, and couple the unbalanced input signal to a first output to match an impedance of the first output to a first impedance. It may further include a second impedance matching element coupled to the first input to receive the unbalanced input signal, the second impedance matching element configured to couple the unbalanced input signal to a second output to match an impedance of the second output to a second impedance. A terminal of the first output and a terminal of the second output may be coupled to provide a balanced output signal, and the coupling may match an output impedance of the impedance matching circuit based on the first impedance and the second impedance.