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Liu et al.(10) **Pub. No.: US 2022/0352816 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **SCC-BASED DC-DC POWER CONVERSION
SYSTEM CAPABLE OF RECEIVING
SWITCHING CONTROL ADJUSTABLE BY
OUTPUT VOLTAGE THEREOF, AND POWER
CONVERSION METHOD THEREOF****Publication Classification**

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Hsinchu County (TW)(21) Appl. No.: **17/511,607**(22) Filed: **Oct. 27, 2021****Related U.S. Application Data**(60) Provisional application No. 63/183,066, filed on May
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(57) **ABSTRACT**

A DC-DC power conversion system includes a resonant switched-capacitor converter and a controller. The resonant switched-capacitor converter is switched between a first state and a second state to generate an output voltage, and includes an input terminal, a resonant tank, an output capacitor, a first set of switches and a second set of switches. The input terminal is used to receive an input voltage. The output capacitor is used to generate the output voltage. The first set of switches is turned on in the first state and turned off in the second state according to a first control signal. The second set of switches is turned on in the second state and turned off in the first state according to a second control signal. The controller adjusts the first control signal and the second control signal according to the output voltage.

