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**CARLSON**(10) **Pub. No.: US 2022/0399896 A1**(43) **Pub. Date: Dec. 15, 2022**(54) **STABLE SCALABLE DIGITAL FREQUENCY  
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Canada, Ottawa (CA)**(72) Inventor: **Brent CARLSON, Penticton (CA)**(21) Appl. No.: **17/776,322**(22) PCT Filed: **Nov. 13, 2020**(86) PCT No.: **PCT/CA2020/051560**

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13, 2019.(57) **ABSTRACT**

A method for timing aperture synthesis arrays comprising the steps of: (a) coupling a plurality of independent crystal oscillators, each of the plurality of independent crystal oscillators having a unique output frequency; (b) digitally synchronizing the plurality of independent crystal oscillators in phase; (c) combining the unique output frequencies; and (d) obtaining a stable digital reference signal for timing at least one remote radio device of the aperture synthesis array.

