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**BEPPU et al.**(10) **Pub. No.: US 2022/0352850 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **CIRCUIT APPARATUS AND OSCILLATOR****G06F 1/04** (2006.01)**H03K 3/03** (2006.01)(71) Applicant: **Seiko Epson Corporation**, Tokyo (JP)(52) **U.S. Cl.**(72) Inventors: **Kohei BEPPU**, Minowa (JP); **Takehiro YAMAMOTO**, Matsumoto (JP)CPC ..... **H03B 5/323** (2013.01); **H03B 5/364**  
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A circuit apparatus includes an oscillation circuit that generates an oscillation signal, a first buffer circuit that outputs a first clock signal based on the oscillation signal, a second buffer circuit that outputs a second clock signal based on the first clock signal, a first terminal electrically coupleable to a first node via which the first buffer circuit outputs the first clock signal, and a second terminal electrically coupled to a second node via which the second buffer circuit outputs the second clock signal, and the rise period of the first clock signal is shorter than the rise period of the second clock signal.

