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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0416794 A1****Sole et al.**(43) **Pub. Date: Dec. 29, 2022**(54) **TIMING SYSTEM INCLUDING A MASTER DEVICE AND AT LEAST A SLAVE DEVICE SYNCHRONIZED WITH EACH OTHER AND RELATED SYNCHRONIZATION METHOD**(52) **U.S. Cl.**CPC *H03L 7/099* (2013.01); *G06F 1/12* (2013.01); *G06F 1/08* (2013.01)

(57)

ABSTRACT

In an embodiment a timing system includes a master timing device including a master oscillator stage configured to receive a reference signal and to generate a first main clock signal frequency-locked with the reference signal, a master timing stage including a master counter configured to update value with a timing that depends on the first main clock signal, the master timing stage configured to generate a first local clock signal of a pulsed type, a timing of pulses of the first local clock signal being controllable by the master counter and a master synchronization stage configured to generate a synchronization signal synchronous with the first local clock signal, wherein the synchronization signal includes a corresponding pulse for each group of consecutive pulses of the first local clock signal formed by a number (N) of pulses, and a slave timing device including a slave oscillator stage configured to receive the reference signal and to generate a second main clock signal frequency-locked with the reference signal, a slave timing stage and a slave synchronization stage.

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