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(19) **United States**(12) **Patent Application Publication**
Nadeau-Dostie et al.(10) **Pub. No.: US 2023/0110161 A1**(43) **Pub. Date: Apr. 13, 2023**(54) **ASYNCHRONOUS INTERFACE FOR
TRANSPORTING TEST-RELATED DATA VIA
SERIAL CHANNELS**(71) Applicant: **Siemens Industry Software Inc.**,
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Jean-Francois Cote, Davie, FL (US)(21) Appl. No.: **17/498,085**(22) Filed: **Oct. 11, 2021****Publication Classification**(51) **Int. Cl.**
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CPC . **G06F 1/12** (2013.01); **G06F 1/06** (2013.01)(57) **ABSTRACT**

A circuit comprises: a first clock gating device clocked by a first clock signal and configured to generate first clock pulses when a shift enable signal is active, a first transition detecting device clocked by a second clock signal and configured to generate shift gating pulses when detecting active transitions of the first clock pulses, a second clock gating device clocked by the second clock signal and configured to generate shift clock pulses based on the shift gating pulses to clock second scan elements for a shift operation with first scan elements clocked by the first clock signal, and a first retiming device triggered by active pulse edges of the first clock signal and configurable to hold a value for the shift operation. The circuit may further comprise a delay generating device configured to generate delayed shift gating pulses for generating the shift clock pulses.

