US 20220407523A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0407523 A1**

O'Brien et al. (43) **Pub. Date: Dec. 22, 2022**

(54) **MULTIPLE SAMPLE-RATE DATA CONVERTER**

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(21) Appl. No.: **17/845,896**

(22) Filed: **Jun. 21, 2022**

Related U.S. Application Data

(60) Provisional application No. 63/212,574, filed on Jun. 18, 2021.

Publication Classification

(51) **Int. Cl.**

H03L 7/07 (2006.01)

H03L 7/14 (2006.01)

(52) **U.S. Cl.**

CPC ***H03L 7/07*** (2013.01); ***H03L 7/148*** (2013.01)

(57) **ABSTRACT**

A test and measurement instrument includes a first data channel including a first data converter operating at a first rate, and a second data channel including a second data converter operating at a second rate that is different than the first rate. Rate controls may include a clock generation circuit. The clock generation circuit includes an intermediate frequency generator structured to generate an intermediate frequency clock from a first clock reference signal, a first frequency clock generator structured to generate a first frequency clock directly from the intermediate frequency clock, and a second frequency clock generator structured to generate a second frequency clock directly from the intermediate frequency clock. The first frequency clock may be used to control the rate of the first data channel, and the second frequency clock may be used to control the rate of the second data channel. Methods are also described.