GLOBAL ETS
NEXT GENERATION COMPONENT TESTING & AUTHENTICATION

US 20230038377A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0038377 A1**

CHUNG et al. (43) **Pub. Date: Feb. 9, 2023**

(54) **DETERMINING ELECTRONIC COMPONENT AUTHENTICITY VIA ELECTRONIC SIGNAL SIGNATURE MEASUREMENT**

(71) Applicant: **University of South Florida**, Tampa, FL (US)

(72) Inventors: **Yunghsiao CHUNG**, New Port Richey, FL (US); **Feng YU**, Lutz, FL (US); **Stephen Edward SADDOW**, Land O Lakes, FL (US)

(73) Assignee: **University of South Florida**, Tampa, FL (US)

(21) Appl. No.: **17/608,838**

(22) PCT Filed: **Apr. 2, 2021**

(86) PCT No.: **PCT/US2021/025481**

§ 371 (c)(1),
(2) Date: **Nov. 4, 2021**

Related U.S. Application Data

(60) Provisional application No. 63/011,485, filed on Apr. 17, 2020.

Publication Classification

(51) **Int. Cl.**

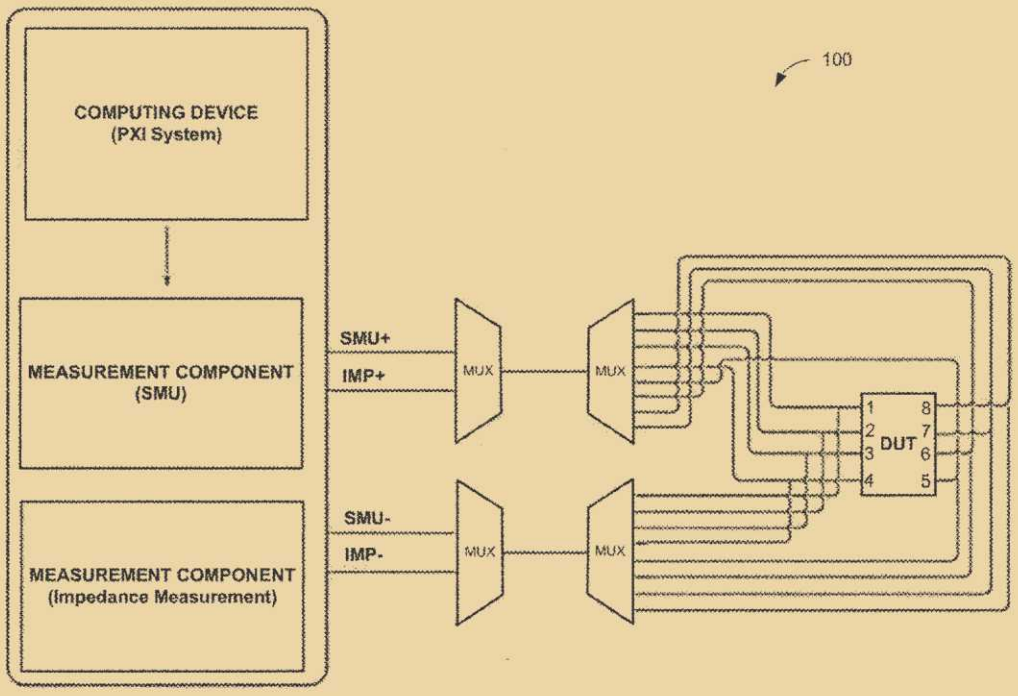
G06F 21/44	(2006.01)
G01R 31/52	(2006.01)
G01R 27/16	(2006.01)
G01R 31/28	(2006.01)

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

CPC ***G06F 21/44*** (2013.01); ***G01R 31/52*** (2020.01); ***G01R 27/16*** (2013.01); ***G01R 31/2851*** (2013.01)

(57) **ABSTRACT**

Examples of determining electronic component authenticity via electronic signal signature measurement are discussed. Reference pin identifiers corresponding to pins of a known authentic electronic component are determined. Measurement values corresponding to characteristics of pins of an electronic component are obtained, and pin identifiers based on the measurement values are generated. Accordingly, an indication that the electronic component is authentic can be provided based at least in part on a comparison of the pin identifiers and the reference pin identifiers.



7.5" X 9.5" Standard