

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0368306 A1 Meitl et al.

Nov. 17, 2022 (43) **Pub. Date:**

(54) PRINTING COMPONENTS TO ADHESIVE SUBSTRATE POSTS

(71) Applicant: X Display Company Technology Limited, Dublin (IE)

(72) Inventors: Matthew Alexander Meitl, Durham,

NC (US); Christopher Andrew Bower, Raleigh, NC (US); Salvatore Bonafede, Chapel Hill, NC (US); Carl Ray Prevatte, JR., Raleigh, NC (US); Ronald S. Cok, Rochester, NY (US); Brook Raymond, Cary, NC (US)

(21) Appl. No.: 17/317,408

(22) Filed: May 11, 2021

Publication Classification

(51) Int. Cl. H03H 9/05 (2006.01)H03H 3/02 (2006.01)

H03H 9/10 (2006.01)(2006.01) B41F 16/00

(52) U.S. Cl.

CPC *H03H 9/0509* (2013.01); *H03H 3/02* (2013.01); H03H 9/105 (2013.01); B41F 16/00 (2013.01)

(57)ABSTRACT

A method of printing comprises providing a component source wafer comprising components, a transfer device, and a patterned substrate. The patterned substrate comprises substrate posts that extend from a surface of the patterned substrate. Components are picked up from the component source wafer by adhering the components to the transfer device. One or more of the picked-up components are printed to the patterned substrate by disposing each of the one or more picked-up components onto one of the substrate posts, thereby providing one or more printed components in a printed structure.

