



US 20220354019A1

(19) **United States**(12) **Patent Application Publication****Tsai et al.**(10) **Pub. No.: US 2022/0354019 A1**(43) **Pub. Date: Nov. 3, 2022**(54) **VAPOR CHAMBER EMBEDDED REMOTE HEATSINK**(52) **U.S. Cl.**
CPC **H05K 7/20336** (2013.01); **H05K 7/20509** (2013.01)(71) Applicant: **Cisco Technology, Inc.**, San Jose, CA (US)(72) Inventors: **Yaotsan Tsai**, San Jose, CA (US); **Yongguo Chen**, Shanghai (CN); **Hua Yang**, Tracy, CA (US); **Vic Hong Chia**, Sunnyvale, CA (US)(21) Appl. No.: **17/242,722**(22) Filed: **Apr. 28, 2021****Publication Classification**(51) **Int. Cl.**
H05K 7/20 (2006.01)(57) **ABSTRACT**

Presented herein is a cold plate assembly including a sub-plate and a vapor chamber for use as part of a remote fin cooling system for an electronic device. The sub-plate includes a first surface, a second surface, and a plurality of pipes. The vapor chamber includes a first wall and a second wall opposite the first wall. The first wall and the second wall define an interior cavity having a first depth for one or more first portions of the vapor chamber and a second depth for one or more second portions of the vapor chamber. The second surface of the sub-plate is attached to the first wall of the vapor chamber.

