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(19) **United States**(12) **Patent Application Publication****Nguyen**(10) **Pub. No.: US 2023/0232596 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SERVICEABLE AND ACCESSIBLE LIQUID COOLED MODULES**(52) **U.S. Cl.**CPC ..... *H05K 1/0201* (2013.01); *H05K 1/14* (2013.01)(71) Applicant: **NIO Technology (Anhui) Co., Ltd.**,  
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(57)

**ABSTRACT**

A removable subassembly is provided for use in a circuit board module. The removable subassembly includes a cooling element that is decoupled from an enclosure constructed for the circuit board module. The cooling element can be fastened directly to a daughter card or other printed circuit board of the electronic module and can act as part of the enclosure for the circuit board module. By having the cooling element fastened to the daughter card and being part of the enclosure, the daughter card or other components of the circuit board module can be removed without the need for a complete disassembly of the circuit board module.

