



US 20220361370A1

(19) **United States**

(12) **Patent Application Publication**
Sabah

(10) **Pub. No.: US 2022/0361370 A1**

(43) **Pub. Date: Nov. 10, 2022**

(54) **HOUSING COMPRISING A COMPOSITE WALL INTEGRATING AT LEAST ONE COOLING CONDUIT**

(71) Applicant: **Safran Electronics & Defense SAS**,
Paris (FR)

(72) Inventor: **Muriel Sabah**, Moissy-Cramayel (FR)

(21) Appl. No.: **17/738,905**

(22) Filed: **May 6, 2022**

(30) **Foreign Application Priority Data**

May 10, 2021 (FR) 2104913

Publication Classification

(51) **Int. Cl.**
H05K 7/20 (2006.01)

(52) **U.S. Cl.**
CPC **H05K 7/20336** (2013.01); **H05K 7/20309**
(2013.01); **H05K 7/20318** (2013.01); **H05K**
7/20509 (2013.01); **H05K 7/20409** (2013.01)

(57) **ABSTRACT**

The disclosure relates to a housing comprising at least one composite wall comprising woven or braided carbon fibers covered with a thermoplastic or thermosetting resin, an electronic card carrying electronic components, and a heat transfer device having at least one portion facing an electronic component to be cooled of the electronic card, said heat transfer device being inserted inside the composite wall, the heat transfer device comprising at least one cooling conduit containing a cooling fluid.

