US 20220369449A1

(19) **United States**

(12) **Patent Application Publication**

Klein et al.

(10) **Pub. No.: US 2022/0369449 A1**

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

(54) **ON-BOARD TELEMATIC DEVICE WITH INTEGRATED COOLING FOR A MOTOR VEHICLE**

(71) Applicant: **VALEO COMFORT AND DRIVING ASSISTANCE**, Créteil (FR)

(72) Inventors: **Patrick Klein**, Créteil (FR); **Renato Curcio**, Créteil (FR)

(73) Assignee: **VALEO COMFORT AND DRIVING ASSISTANCE**, Créteil (FR)

(21) Appl. No.: **16/631,268**

(22) PCT Filed: **Jul. 17, 2018**

(86) PCT No.: **PCT/EP2018/069445**

§ 371 (c)(1),
(2) Date: **Apr. 10, 2020**

(30) **Foreign Application Priority Data**

Jul. 17, 2017 (FR) 1756748

Publication Classification

(51) **Int. Cl.**
H05K 1/02 (2006.01)
H01Q 1/32 (2006.01)

(52) **U.S. Cl.**
CPC ***H05K 1/021*** (2013.01); ***H01Q 1/325*** (2013.01)

(57) **ABSTRACT**

An on-board telematic device intended to be attached to a metal part (**3**) of a body of a motor vehicle comprises, according to the invention, a housing (**1**) integrating a printed circuit board (**5**), a face of which supports at least one electronic power component (**6**), a radiofrequency antenna (**7**), intended to extend through an opening of the metal part (**3**), and a metal screen (**9**) interposed between a lower part of the antenna (**7**), on the one hand, and the printed circuit board (**5**) and said at least one component, on the other hand, in order to isolate the antenna from parasitic emissions. The component (**6**) is placed in line with the metal screen (**9**) and in thermal contact with a portion of said screen, and said screen (**9**) is made of a thermally conductive material so as to form a thermal transfer means between the electronic power component (**6**) and the metal part (**3**).