US 20220377896A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0377896 A1**

SALKOVIC et al. (43) **Pub. Date: Nov. 24, 2022**

(54) **COMPONENT CARRIER WITH A MAGNETIC ELEMENT AND A MANUFACTURING METHOD**

(71) Applicant: **AT &S Austria Technologie & Systemtechnik Aktiengesellschaft**, Leoben (AT)

(72) Inventors: **Ivan SALKOVIC**, Zagreb (HR); **Vanesa LÓPEZ BLANCO**, Vimianzo (ES)

(21) Appl. No.: **17/663,418**

(22) Filed: **May 13, 2022**

(30) **Foreign Application Priority Data**

May 18, 2021 (EP) 21174488.3

Publication Classification

(51) **Int. Cl.**

H05K 1/16	(2006.01)
H01F 17/00	(2006.01)
H05K 1/09	(2006.01)
H05K 3/12	(2006.01)

(52) **U.S. Cl.**

CPC ***H05K 1/165*** (2013.01); ***H01F 17/0006*** (2013.01); ***H05K 1/09*** (2013.01); ***H05K 3/1216*** (2013.01); *H05K 2201/0358* (2013.01); *H05K 2201/0376* (2013.01); *H05K 2203/308* (2013.01)

(57) **ABSTRACT**

A component carrier includes a stack including at least one electrically conductive layer structure and/or at least one electrically insulating layer structure, a magnetic element assembled to the stack, and a dielectric layer structure on the stack. The magnetic element includes an embedded inductive element. The dielectric layer structure at least partially surrounds the magnetic element. Further, a manufacturing method and a use of photo-imaging are described.