



(11) **EP 3 616 255 B8**

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:  
**Corrected version no 1 (W1 B1)**  
**Corrections, see**  
**Bibliography INID code(s) 73**

(48) Corrigendum issued on:  
**25.10.2023 Bulletin 2023/43**

(45) Date of publication and mention  
of the grant of the patent:  
**20.09.2023 Bulletin 2023/38**

(21) Application number: **18722248.4**

(22) Date of filing: **25.04.2018**

(51) International Patent Classification (IPC):  
**H01P 1/20** (2006.01) **H01Q 1/52** (2006.01)  
**H01Q 15/00** (2006.01) **H05K 1/02** (2006.01)

(52) Cooperative Patent Classification (CPC):  
**H01P 1/2005; H01Q 1/521; H01Q 15/008;**  
**H05K 1/0236; H05K 2201/09609;**  
**H05K 2201/09681; H05K 2201/0969;**  
**H05K 2201/09781**

(86) International application number:  
**PCT/NL2018/050268**

(87) International publication number:  
**WO 2018/199753 (01.11.2018 Gazette 2018/44)**

(54) **EBG STRUCTURE, EBG COMPONENT, AND ANTENNA DEVICE**

EBG-STRUKTUR, EBG-KOMPONENTE UND ANTENNENVORRICHTUNG

STRUCTURE EBG, COMPOSANT EBG ET DISPOSITIF D'ANTENNE

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB**  
**GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO**  
**PL PT RO RS SE SI SK SM TR**

(30) Priority: **25.04.2017 NL 2018779**  
**28.07.2017 NL 2019365**  
**25.10.2017 NL 2019798**  
**05.12.2017 NL 2020017**

(43) Date of publication of application:  
**04.03.2020 Bulletin 2020/10**

(73) Proprietor: **The Antenna Company International**  
**N.V.**  
**Willemstad (CW)**

(72) Inventors:  
• **KEYROUZ, Shady**  
**5622 GX Eindhoven (NL)**  
• **CARATELLI, Diego**  
**5525 CB Duizel (NL)**

- **DE JONG VAN COEVORDEN, Carlos Moreno**  
**5615 RE Eindhoven (NL)**
- **PIRNESKOSKI, Jarmos**  
**5611 BM Eindhoven (NL)**
- **GIELIS, Johan Leo Alfons**  
**2018 Antwerpen (BE)**

(74) Representative: **Patentwerk B.V.**  
**P.O. Box 1514**  
**5200 BN 's-Hertogenbosch (NL)**

(56) References cited:  
**WO-A1-2017/061869 CN-A- 106 299 727**  
**US-A1- 2015 214 630 US-A1- 2016 344 093**

- **ZARGHOONI BEHNAM ET AL: "Supershaped metamaterial unit-cells using the gielis formula", 2015 IEEE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION & USNC/URSI NATIONAL RADIO SCIENCE MEETING, IEEE, 19 July 2015 (2015-07-19), pages 458-459, XP032796326, DOI: 10.1109/APS.2015.7304615**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).