

Title (en)  
METHOD AND APPARATUS FOR INTEGRATED SHIELDED CIRCULATOR

Title (de)  
VERFAHREN UND VORRICHTUNG FÜR EINEN INTEGRIERTEN ABGESCHIRMTE ZIRKULATOR

Title (fr)  
PROCÉDÉ ET APPAREIL POUR CIRCULATEUR BLINDÉ INTÉGRÉ

Publication  
**EP 3815176 A4 20220323 (EN)**

Application  
**EP 19826857 A 20190426**

Priority  
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Abstract (en)  
[origin: CN112385080A] An RF circulator in combination with a RF integrated circuit, the RF integrated circuit having a plurality of RF waveguide or waveguide-like structures in or on the RF integrated circuit, the RF circulator comprising a disk of ferrite material disposed on a metallic material disposed on or in the RF integrated circuit, the disk of ferrite material extending away from the RF integrated circuit when disposed thereon, the metallic portion having a plurality of apertures therein adjacent the disk of ferrite material which, in use, are in electromagnetic communication with the disk of ferrite material and with the plurality of RF waveguide or waveguide-like structures, the disk of ferrite material being disposed in a metallic cavity.

IPC 8 full level  
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Citation (search report)  
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• [A] WO 2018093771 A1 20180524 - ZTE CORP [CN], et al  
• [A] GB 2005924 A 19790425 - LICENTIA GMBH  
• [A] CHAO LIU ET AL: "Millimeter wave hexagonal nano-ferrite circulator on silicon CMOS substrate", 2014 IEEE MTT-S INTERNATIONAL MICROWAVE SYMPOSIUM (IMS2014), IEEE, 1 June 2014 (2014-06-01), pages 1 - 4, XP032615086, DOI: 10.1109/MWSYM.2014.6848467  
• [A] RABA'AH SYAHIDAH AZIS ET AL: "Influence of pH Adjustment Parameter for Sol-Gel Modification on Structural, Microstructure, and Magnetic Properties of Nanocrystalline Strontium Ferrite", NANOSCALE RESEARCH LETTERS, SPRINGER, US, vol. 13, no. 1, 23 May 2018 (2018-05-23), pages 1 - 13, XP021256710, ISSN: 1931-7573, DOI: 10.1186/S11671-018-2562-X  
• See references of WO 2020005380A1

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