

Title (en)

Switchable RF-path and frequency splitter for wide range multiband applications

Title (de)

Umschaltbarer HF-Weg und Frequenzteiler für verschiedenste Multibandanwendungen

Title (fr)

Circuit RF commutable et séparateur de fréquences pour applications de bande passante de grande portée

Publication

EP 2037530 A1 20090318 (EN)

Application

EP 07291104 A 20070913

Priority

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Abstract (en)

A switchable FR-path (P1, P2, P3) and a frequency splitter comprising n RF-paths (P1, P2, P3), for use in a multiband and/or multistandard module comprising an RF-input port and an RF-output port, and at least one RF-block (Sb1, Sb2, Sb3), each RF-block (Sb1, Sb2, Sb3) consisting of a quarter-wave line section (QW1, QW2, QW3) shunt connected at its output side to a switching element (S1, S2, S3) which is connected to ground on an output side, whereby each quarter-wave line section (QW1, QW2, QW3) is directly connected in series with the corresponding switching element (S1, S2, S3), wherein for each RF-block (Sb1, Sb2, Sb3) a predetermined frequency band is selected and the length of said quarter-wave line section is matched to said selected frequency band. The inventive frequency splitter enables switching more than two frequency bands and/or a frequency band to more than two ports and also for switching frequencies which are located within a wide frequency range.

IPC 8 full level

H01P 1/10 (2006.01)

CPC (source: EP)

H01P 1/10 (2013.01)

Citation (applicant)

US 2007155345 A1 20070705 - WIEGNER DIRK [DE], et al

Citation (search report)

- [DX] EP 1796203 A1 20070613 - ALCATEL LUCENT [FR]
- [X] EP 1237222 A1 20020904 - ERICSSON TELEFON AB L M [SE]
- [X] US 6496082 B1 20021217 - DIPIAZZA GERALD CHARLES [US]
- [X] DE LOS SANTOS H J ET AL: "RF MEMS for ubiquitous wireless connectivity: Part 2 - application", IEEE MICROWAVE MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 5, no. 4, December 2004 (2004-12-01), pages 50 - 65, XP011124828, ISSN: 1527-3342

Cited by

RU2504869C2; RU2632259C1; CN108923791A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

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DOCDB simple family (publication)

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