Title (en)

Antenna switching circuit with band pass filter and harmonics suppression

Title (de)

Antennenumschaltvorrichtung mit einem Bandpass Filter und Unterdrückung von Harmonischen

Title (fr)

Circuit de commutation d'antenne avec un filtre passe-bande et suppression des harmoniques

Publication

EP 1919027 A1 20080507 (EN)

Application

EP 06022820 A 20061102

Priority

EP 06022820 A 20061102

Abstract (en)

The present invention relates to a radio frequency (RF) apparatus comprising a radio frequency (RF) transceiver circuit (1) or radio frequency (RF) transmitter circuit (1), an antenna switching circuit for connecting the RF transceiver circuit or RF transmitter circuit to one of a plurality of antennas (4) to provide a signal path between the RF transceiver/transmitter circuit and a selected one of the plurality of antennas (4). The antenna switching circuit comprises a parallel resonator circuit (5) comprising a capacitor (5a) and an inductor (5b), and a plurality of additional inductors (6.1, ..., 6.n) coupled to each of a plurality of antenna connectors (3.1, ..., 3.n). The capacitor (5a), the inductor (5b), and the additional inductors (6.1, ..., 6.n) are chosen to form a bandpass-filter at the fundamental frequency (f0), and to suppress the second harmonic (f1) and the third harmonic (f2) of the fundamental frequency (f0), by tuning the parasitic capacitances and inductances of at least one of said components.

IPC 8 full level

H01Q 1/24 (2006.01)

CPC (source: EP)

H01Q 1/24 (2013.01)

Citation (applicant)

- EP 0932216 A1 19990728 - MURATA MANUFACTURING CO [JP]
- US 7053845 B1 20060530 - HOLLOWAY DAVID J [US], et al
- GB 2293277 A 19960320 - MOTOROLA INC [US]

Citation (search report)

- [A] EP 0932216 A1 19990728 - MURATA MANUFACTURING CO [JP]
- [A] US 7053845 B1 20060530 - HOLLOWAY DAVID J [US], et al
- [A] GB 2293277 A 19960320 - MOTOROLA INC [US]
- [A] US 2002044092 A1 20020418 - KUSHIHI YUICHI [JP]

Cited by

CN108183331A; CN112204814A; CN113471697A; US2014246916A1; US9819228B2; KR101479962B1

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DOCDB simple family (publication)

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