

Title (en)

Compact balun for rejecting common mode electromagnetic fields

Title (de)

Kompakt Balun zur Ablehnung den gemeinsamen elektromagnetischer Modus

Title (fr)

Balun compacte pour refuser le mode common des champs electromagnétiques.

Publication

EP 2273605 A3 20110323 (EN)

Application

EP 10181791 A 20040407

Priority

- EP 04821964 A 20040407
- US 2004010749 W 20040407

Abstract (en)

[origin: WO2005109566A1] A space-efficient broadband balun (20). The balun (20) includes a first mechanism (44, 80, 82, 94, 96) for receiving an input signal (52, 54) having an undesirable component. A second mechanism (50) rejects the undesirable component via a waveguide transition (50). In a specific embodiment, the undesirable component is a common mode component. The first mechanism (44) includes an input microstrip waveguide (44). The waveguide transition (50) is a single microstrip-to-slotline transition (50) from the input microstrip waveguide (44) and to a slotline (32) in a ground plane (34, 36) of the microstrip waveguide (44). The slotline (32) is terminated at a first end (38) via a wedge (40) in the ground plane (34, 46). A second end (42) of the slotline (32) provides an output of the balun (20). The input signal (52, 54) includes a first input signal (52) and a second input signal (54), which are input at opposite ends (38, 42) of the input microstrip waveguide (44). The first input signal (52) and the second input signal (54) have a desired differential mode component and an undesired common mode component.

IPC 8 full level

H01P 5/10 (2006.01)

CPC (source: EP)

H01P 5/10 (2013.01)

Citation (search report)

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DE SE

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