

Title (en)
TRANSMITTING AND RECEIVING RADIO SIGNALS IN VARIOUS FREQUENCY RANGES

Title (de)
SENDEN UND EMPFANGEN VON FUNKSIGNALEN IN VERSCHIEDENEN FREQUENZBEREICHEN

Title (fr)
EMISSION ET RÉCEPTION DE SIGNAUX RADIO DANS DIFFÉRENTES PLAGES DE FRÉQUENCE

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Application
EP 11719495 A 20110419

Priority
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• EP 2011056255 W 20110419

Abstract (en)
[origin: WO2011134845A1] The invention relates to a device (1, 21, 31) for transmitting and receiving radio signals, in particular radio signals in a cellular radio network such as UTMS, LTE, and/or GSM, wherein the device (1, 21, 31) comprises at least two antennas (3, 4, 5), of which a first antenna (5) is designed as a transmitting antenna for transmitting radio signals and at least one other, second antenna (3, 4) is designed as a receiving antenna for receiving radio signals; the antennas (3, 4, 5) are each designed for transmitting and/or receiving radio signals in a different frequency range; each of the antennas (3, 4, 5) is connected to a common cable connection (19) via a radio signal splitter (14), by means of which cable connection the device (1, 21, 31) can be connected to a radio terminal; the device (1, 21, 31) comprises at least one radio signal amplifier (7, 37, 38), wherein a first radio signal amplifier (7, 37) is disposed in a first radio signal path between the radio signal splitter (14, 34) and the transmitting antenna (5) and/or a second radio signal amplifier (38) is disposed in a second radio signal path between the receiving antenna (4) and the radio signal splitter (14); and the transmitting antenna (5) and the receiving antenna (3, 4) comprise damping with respect to feedback of a radio signal transmitted from the transmitting antenna (5) to the receiving antenna (3, 4) due to the arrangement thereof relative to each other and due to the transmitting and/or receiving characteristics thereof, said damping being greater than the amplification gain of the first and second radio signal amplifier (7, 37, 38), minus a damping comprised of the radio signal splitter (14) with respect to crosstalk of the signals between the radio signal paths.

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