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Patent Number(s): FR2965980-A1; US2012086608-A1

Title: Transmitting/receiving device for use in wireless communication device that is integrated to TV to transmit/receive signals, has group directional antennas arranged around group omni-directional antennas

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Derwent Primary Accession No.: 2012-E21128

Abstract: NOVELTY - The device has an antenna array including first group omni-directional antennas (A11-A15) and other group second directional antennas (A21-A28) arranged around the former group antennas. The former group antennas is arranged in an ovoid-shaped central region (S1). The latter group antennas is located in a ring (S2) around the central region. A control unit controls a phase-shifting unit configured for applying phase-shifts to the signals from the antennas the former group and/or to the signals from the antennas the latter group.

USE - Transmitting/receiving device for use in a wireless communication device (claimed) that is integrated to a TV to transmit/receive signals having microwave wavelength, millimeter wavelength or terahertz wavelength.

ADVANTAGE - The group antennas is arranged in an ovoid-shaped central region, thus allowing efficient distribution the antennas. The utilization uniform distances between the isobarycenters the antennas allows the surface the antenna array to be minimized for antenna gain. The design the antenna array ensures that the device has reasonable power consumption.

DESCRIPTION DRAWING(S) - The drawing shows a schematic view an antenna array.

Omni-directional antennas (A11-A15)

Directional antennas (A21-A28)

Radiation pattern (DR)

Ovoid-shaped central region (S1)

Ring (S2)

Drawing:

Derwent Class Code(s): W02 (Broadcasting, Radio and Line Transmission Systems)

Derwent Manual Code(s): W02-B05; W02-B08R3; W02-C03A4B

IPC: H01Q-021/29; H01Q-025/00; H04B-007/10; H01Q-001/24; H01Q-021/00

Patent Details:

Patent Number	Publ. Date	Main IPC	Week	Page Count	Language
FR2965980-A1	13 Apr 2012	H01Q-025/00	201229	Pages: 27	French
US2012086608-A1	12 Apr 2012	H01Q-021/00	201229		English

Application Details and Date:

FR2965980-A1 FR058110 06 Oct 2010

US2012086608-A1 US242591 23 Sep 2011

Priority Application Information and Date:

FR058110 06 Oct 2010

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