

Title (en)
AN APPARATUS AND ASSOCIATED METHODS FOR WIRELESS COMMUNICATION

Title (de)
VORRICHTUNG UND ZUGEHÖRIGES VERFAHREN FÜR DRAHTLOSE KOMMUNIKATION

Title (fr)
APPAREIL ET PROCÉDÉS ASSOCIÉS POUR UNE COMMUNICATION SANS FIL

Publication
EP 3084989 A4 20170816 (EN)

Application
EP 13899652 A 20131216

Priority
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Abstract (en)
[origin: WO2015092482A1] An apparatus comprising: a phononic filter configured to filter received phonons having a particular range of frequencies and output filtered phonons having frequencies within a sub-range of the particular range of frequencies; a phononic waveguide coupled to the phononic filter and configured to channel the filtered phonons away from the phononic filter; and at least one metallic carbon nanotube bundle coupled at one end to the phononic waveguide to receive channelled filtered phonons, wherein the at least one bundle has a length to exhibit surface plasmon resonance at a frequency corresponding to the frequency of the channelled filtered phonons to convert the channelled filtered phonons to heat wave signals for transmission. Also, a system comprising the apparatus and a receiver configured to receive heat transmitted waves from the apparatus and convert the received heat transmitted waves to electrical signals.

IPC 8 full level
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CPC (source: EP)
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Citation (search report)
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• [YA] PETER RUSSER ET AL: "Nanoelectronics-Based Integrate Antennas", IEEE MICROWAVE MAGAZINE, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 11, no. 7, 1 December 2010 (2010-12-01), pages 58 - 71, XP011338529, ISSN: 1527-3342, DOI: 10.1109/MMM.2010.938570
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• See references of WO 2015092482A1

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