

Title (en)
CONDUCTIVE LIQUID ANTENNA

Title (de)
ANTENNE MIT LEITFÄHIGER FLÜSSIGKEIT

Title (fr)
ANTENNE DE LIQUIDE CONDUCTEUR

Publication
EP 3648247 A1 20200506 (EN)

Application
EP 18275166 A 20181029

Priority
EP 18275166 A 20181029

Abstract (en)
An antenna 300 comprising a housing 310 with an internal cavity 315. The cavity 315 holds an adjustable amount of electrically conductive liquid, and a twin-conductor feedline 350 connects the antenna 300 to a receiving and/or transmitting device. The conductive liquid in the cavity 315 of the antenna housing 310 acts as a first element and receives/transmits signals from/to the first feedline conductor, whilst the second feedline conductor is attached to electrical ground 320.

IPC 8 full level
H01Q 1/36 (2006.01); **H01Q 9/04** (2006.01); **H01Q 9/30** (2006.01)

CPC (source: EP)
H01Q 1/364 (2013.01); **H01Q 9/0442** (2013.01); **H01Q 9/30** (2013.01)

Citation (applicant)
• WO 2014042486 A1 20140320 - SAMSUNG ELECTRONICS CO LTD [KR]
• GB 2435720 A 20070905 - SAMSUNG ELECTRO MECH [KR]

Citation (search report)
• [X] CN 103794844 A 20140514 - ACER INC
• [XI] US 2014078019 A1 20140320 - KIM HOSAENG [KR], et al
• [A] US 2004252069 A1 20041216 - RAWNICK JAMES J [US], et al
• [XI] BHARAMBE VIVEK ET AL: "Reversibly Reconfigurable Liquid Metal Patch Antenna Using A Superhydrophobic Spray-Coating", 2018 IEEE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION & USNC/URSI NATIONAL RADIO SCIENCE MEETING, IEEE, 8 July 2018 (2018-07-08), pages 287 - 288, XP033496658, DOI: 10.1109/APUSNCURSINRSM.2018.8608814
• [XI] ALQURASHI KHALED YAHYA ET AL: "Continuously tunable frequency reconfigurable liquid metal microstrip patch antenna", 2017 IEEE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION & USNC/URSI NATIONAL RADIO SCIENCE MEETING, IEEE, 9 July 2017 (2017-07-09), pages 909 - 910, XP033229714, DOI: 10.1109/APUSNCURSINRSM.2017.8072497
• [X] LEI XING ET AL: "A monopole water antenna", ANTENNAS AND PROPAGATION CONFERENCE (LAPC), 2012 LOUGHBOROUGH, IEEE, 12 November 2012 (2012-11-12), pages 1 - 4, XP032299086, ISBN: 978-1-4673-2218-8, DOI: 10.1109/LAPC.2012.6402985

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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