

Title (en)  
**MULTIPLEXER**

Title (de)  
**MULTIPLEXER**

Title (fr)  
**MULTIPLEXEUR**

Publication  
**EP 3304735 A1 20180411 (DE)**

Application  
**EP 16725430 A 20160517**

Priority  
• DE 102015108511 A 20150529  
• EP 2016061028 W 20160517

Abstract (en)  
[origin: CA2983774A1] The multiplexer operates using acoustic waves and comprises an antenna connection (ANT) for coupling the multiplexer to at least one antenna, at least one transmission connection (TxC), at least one receiving connection (RxC), and a common connection (CC). Furthermore, the multiplexer has at least one receiving path which is connected between the at least one receiving connection (RxC) and the common connection (CC) and which comprises a receiving filter (RX) that operates using acoustic waves. The multiplexer has at least one transmission path which is connected between the at least one transmission connection (TxC) and the common connection (CC) and which comprises a transmission filter (TX) that operates using acoustic waves. The multiplexer further comprises at least one mirrored network (PH) which is designed and arranged so as to rotate a phase of an antenna-side output reflection coefficient (S22) of the at least one transmission path and/or the at least one receiving path in a specified frequency band such that a value of the respective output reflection coefficient in the specified frequency band exceeds a specified threshold, and thus signals are reflected in the specified frequency band to the extent that an interference mode excitation is omitted or reduced in the transmission filter (TX) of the at least one transmission path or in the receiving filter (RX) of the at least one receiving path.

IPC 8 full level  
**H03H 9/70** (2006.01); **H03H 9/72** (2006.01)

CPC (source: EP KR US)  
**H03H 9/02228** (2013.01 - US); **H03H 9/6489** (2013.01 - US); **H03H 9/706** (2013.01 - EP KR US); **H03H 9/725** (2013.01 - EP KR US); **H04L 5/1461** (2013.01 - US)

Citation (search report)  
See references of WO 2016192983A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102015108511 B3 20160922**; BR 112017025524 A2 20180807; CA 2983774 A1 20161208; CN 107567683 A 20180109; EP 3304735 A1 20180411; JP 2018521558 A 20180802; KR 20180013863 A 20180207; US 2018138890 A1 20180517; WO 2016192983 A1 20161208

DOCDB simple family (application)  
**DE 102015108511 A 20150529**; BR 112017025524 A 20160517; CA 2983774 A 20160517; CN 201680025399 A 20160517; EP 16725430 A 20160517; EP 2016061028 W 20160517; JP 2017561723 A 20160517; KR 20177031256 A 20160517; US 201615574325 A 20160517