

Title (en)  
RADIO TO DETECT AND COMPENSATE FOR FREQUENCY MISALIGNMENT

Title (de)  
FUNK ZUR DETEKTION UND KOMPENSATION VON FREQUENZFEHLAUSRICHTUNG

Title (fr)  
RADIO PERMETTANT DE DÉTECTER ET DE COMPENSER UN DÉSALIGNEMENT DE FRÉQUENCES

Publication  
**EP 2959595 A1 20151230 (EN)**

Application  
**EP 14710458 A 20140225**

Priority

- US 201313776575 A 20130225
- US 201313776562 A 20130225
- US 201313776476 A 20130225
- US 201313776505 A 20130225
- US 201313776528 A 20130225
- US 201313776548 A 20130225
- US 201313776587 A 20130225
- US 2014018440 W 20140225

Abstract (en)  
[origin: WO2014131036A1] A decoder for a modulation scheme is configured to operate close to the radio noise floor. A correlation value may be constantly updated, in an effort to match to a signature to a preamble of a packet. A low clamp value may act as a floor to which a calculated correlation value is set, if it is less than the low clamp value. If a correlation threshold is exceeded, then the correlation value is examined to determine it is a peak value. If the peak is found, power of the preamble is compared to a power threshold that is relative to the radio noise floor. If the power threshold is exceeded, positive correlation is detected. A channel optimizer is used to remove the frequency misalignment. This enables the use of a filter that is approximately equal to the occupied bandwidth of the incoming signal, further rejecting noise and interference.

IPC 8 full level  
**H04B 1/00** (2006.01); **H03M 13/37** (2006.01); **H04L 1/00** (2006.01); **H04L 27/00** (2006.01); **H04L 27/14** (2006.01); **H04W 16/14** (2009.01); **H04W 28/18** (2009.01); **H04W 52/20** (2009.01)

CPC (source: EP)  
**H04L 1/0003** (2013.01); **H04L 27/0006** (2013.01); **H04L 27/0008** (2013.01); **H04L 27/0014** (2013.01); **H04L 27/14** (2013.01); **H04L 1/203** (2013.01); **Y02D 30/50** (2020.08)

Citation (search report)  
See references of WO 2014131053A1

Citation (examination)

- WO 2009055770 A1 20090430 - HUNT TECHNOLOGIES LLC [US], et al
- GIL SAVIR: "MSc Thesis: Scalable and Reconfigurable Digital Front-End for SDR Wideband Channelizer", 1 September 2011 (2011-09-01), Delft, NL, XP055020395, Retrieved from the Internet <URL:http://ce.et.tudelft.nl/publicationfiles/1206\_716\_Gil\_Savir-MSc\_thesis.pdf> [retrieved on 20120227]

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)  
**WO 2014131036 A1 20140828**; CA 2902527 A1 20140828; CA 2902527 C 20190305; CA 2902532 A1 20140828; CA 2902532 C 20180306; CA 2902534 A1 20140828; CA 2902534 C 20180306; CA 2902536 A1 20140828; CA 2902536 C 20180306; CA 2902537 A1 20140828; CA 2902537 C 20180306; CA 2902539 A1 20140828; CA 2902539 C 20180306; CA 2902551 A1 20140828; CA 2902551 C 20180306; EP 2959591 A1 20151230; EP 2959591 B1 20200325; EP 2959592 A1 20151230; EP 2959593 A1 20151230; EP 2959593 B1 20190710; EP 2959594 A1 20151230; EP 2959594 B1 20190703; EP 2959595 A1 20151230; EP 2959596 A1 20151230; EP 2959596 B1 20190731; EP 2959597 A1 20151230; WO 2014131039 A1 20140828; WO 2014131045 A1 20140828; WO 2014131047 A1 20140828; WO 2014131049 A1 20140828; WO 2014131051 A1 20140828; WO 2014131053 A1 20140828

DOCDB simple family (application)  
**US 2014018408 W 20140225**; CA 2902527 A 20140225; CA 2902532 A 20140225; CA 2902534 A 20140225; CA 2902536 A 20140225; CA 2902537 A 20140225; CA 2902539 A 20140225; CA 2902551 A 20140225; EP 14710452 A 20140225; EP 14710455 A 20140225; EP 14710456 A 20140225; EP 14710457 A 20140225; EP 14710458 A 20140225; EP 14711865 A 20140225; EP 14713956 A 20140225; US 2014018413 W 20140225; US 2014018423 W 20140225; US 2014018429 W 20140225; US 2014018433 W 20140225; US 2014018436 W 20140225; US 2014018440 W 20140225