

Title (en)

ACQUIRING AND TRACKING A SATELLITE SIGNAL WITH A MOBILE ANTENNA

Title (de)

ERFASSUNG UND VERFOLGUNG EINES SATELLITENSIGNALS MIT EINER MOBILEN ANTENNE

Title (fr)

ACQUISITION ET SUIVI DE SIGNAL SATELLITE PAR ANTENNE MOBILE

Publication

EP 3423857 A1 20190109 (EN)

Application

EP 17712880 A 20170301

Priority

- US 201662302051 P 20160301
- US 201662438282 P 20161222
- US 201715445541 A 20170228
- US 2017020232 W 20170301

Abstract (en)

[origin: WO2017151790A1] A method and apparatus is disclosed herein for acquiring and tracking a satellite signal with an antenna. In one embodiment, the method comprises a) perturbing one or more of roll, pitch and yaw angles of an antenna orientation to create variant orientations associated with a first search pattern; b) computing new scan and polarization angles, in response to perturbed roll, pitch and yaw angles, for each of the variant orientations; c) receiving a radio-frequency (RF) signal from a satellite for each of the variant orientations; d) generating one or more receiver metrics representing a received RF signal associated with each of the variant orientations; e) selecting, as a new orientation, one of the variant orientations based on the one or more receiver metrics; and f) repeating a)-e) with the new orientation with a second search pattern narrower than the first search pattern.

IPC 8 full level

G01S 3/06 (2006.01); **G01S 3/08** (2006.01); **G01S 3/38** (2006.01); **H01Q 3/24** (2006.01); **H01Q 3/44** (2006.01); **H01Q 21/00** (2006.01); **H01Q 21/06** (2006.01); **H01Q 21/20** (2006.01); **H01Q 21/24** (2006.01); **H04B 7/185** (2006.01)

CPC (source: EP IL KR)

G01S 3/08 (2013.01 - EP IL KR); **G01S 3/38** (2013.01 - EP IL KR); **H01Q 3/247** (2013.01 - EP IL KR); **H01Q 21/0012** (2013.01 - EP IL KR); **H01Q 21/005** (2013.01 - EP IL KR); **H01Q 21/065** (2013.01 - EP IL KR); **H01Q 21/20** (2013.01 - EP IL KR); **H01Q 21/245** (2013.01 - EP IL KR); **H04B 7/185** (2013.01 - EP IL); **H04B 7/18513** (2013.01 - EP IL KR)

Citation (search report)

See references of WO 2017151790A1

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 2017151790 A1 20170908; CA 3015110 A1 20170908; CA 3015110 C 20240521; EP 3423857 A1 20190109; IL 261336 A 20181031; IL 261336 B 20220101; JP 2019512681 A 20190516; JP 6980675 B2 20211215; KR 102342033 B1 20211221; KR 20180122364 A 20181112

DOCDB simple family (application)

US 2017020232 W 20170301; CA 3015110 A 20170301; EP 17712880 A 20170301; IL 26133618 A 20180823; JP 2018545823 A 20170301; KR 20187027380 A 20170301