

Title (en)
METHOD FOR PROCESSING RADIO-FREQUENCY SIGNALS RECEIVED ON R ANTENNAS, AND CORRESPONDING RECEPTION METHOD, DECODING METHOD, COMPUTER PROGRAM AND SYSTEM

Title (de)
VERFAHREN ZUR VERARBEITUNG VON AUF R-ANTENNEN EMPFANGENEN HOCHFREQUENZSIGNALEN SOWIE ENTSPRECHENDES EMPFANGSVERFAHREN, DECODIERUNGSVERFAHREN, COMPUTERPROGRAMM UND SYSTEM

Title (fr)
PROCEDE DE TRAITEMENT DE SIGNAUX RADIOFREQUENCE REÇUS SUR R ANTENNES, PROCEDE DE RECEPTION, PROCEDE DE DECODAGE, PROGRAMME D'ORDINATEUR ET SYSTEME CORRESPONDANTS

Publication
EP 4348874 A1 20240410 (FR)

Application
EP 22735014 A 20220603

Priority
• FR 2105931 A 20210604
• FR 2022051059 W 20220603

Abstract (en)
[origin: WO2022254161A1] The invention relates to a method for processing radio-frequency signals received on R antennas, wherein $R \geq 2$, comprising the following steps, implemented by a radio unit: obtainment (311 1) of a frequency representation of the radio-frequency signal received on an antenna; de-mapping (312) of the frequency representations; first estimation (313) of the transmission channel of the radio-frequency signals and of a covariance of noise plus interference; projection (314) of a vector of R complex samples onto a vector of L complex samples, referred to as projected samples; transmission of said vector of L projected samples to a baseband processing unit, as well as the following steps implemented by the base band processing unit: reception of the vector of the L projected samples transmitted by the radio unit; de-mapping (320) of the L projected samples; second estimation (321) of the transmission channel of the radio-frequency signals, following projection; equalization (322) of the L projected samples, taking account of the second channel estimation; and processing (323 1) of the equalized symbols.

IPC 8 full level
H04B 7/08 (2006.01); **H04B 7/0452** (2017.01); **H04L 25/02** (2006.01); **H04L 25/03** (2006.01); **H04W 88/08** (2009.01)

CPC (source: EP)
H04B 7/0837 (2013.01); **H04L 25/03891** (2013.01); **H04B 7/0452** (2013.01); **H04L 25/0224** (2013.01)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
FR 3123774 A1 20221209; EP 4348874 A1 20240410; WO 2022254161 A1 20221208

DOCDB simple family (application)
FR 2105931 A 20210604; EP 22735014 A 20220603; FR 2022051059 W 20220603