

Title (en)

A SUBOPTIMAL DETECTOR FOR TIME FREQUENCY PACKING

Title (de)

SUBOPTIMALER DETEKTOR FÜR ZEITFREQUENZVERPACKUNG

Title (fr)

DÉTECTEUR SOUS-OPTIMAL POUR GROUPAGE PAR FRÉQUENCE TEMPORELLE

Publication

**EP 4342082 A1 20240327 (EN)**

Application

**EP 21947411 A 20210628**

Priority

CN 2021102816 W 20210628

Abstract (en)

[origin: WO2023272447A1] A soft-output symbol detector (500) for detecting one or more symbol streams from a received signal (101) representing multiple time-frequency packed linearly modulated signals (101a). The detector (600) comprises one or more processors (601) configured to: process the received signal (101) to compute a proper joint probability mass function (102); form a factor graph (103) by performing an exact factorisation of the joint probability mass function (102); compute marginals (104a) of the joint probability mass function (102) by performing a message-passing algorithm on nodes (103a, 103b) of the factor graph (103); and detect the symbol stream (s) (105a) in dependence on the computed marginals (104a). Detecting the symbol stream (s) (105a) in dependence on the computed marginals (104a) enables the detection to be based on the exact factorisation of the proper joint probability mass function (102) of the received signal (101).

IPC 8 full level

**H03C 3/00** (2006.01)

CPC (source: EP)

**H04L 25/067** (2013.01); **H04L 27/14** (2013.01); **H04B 1/7105** (2013.01); **H04L 25/03171** (2013.01); **H04L 25/03331** (2013.01); **H04L 25/03821** (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)

**WO 2023272447 A1 20230105**; EP 4342082 A1 20240327; EP 4342082 A4 20241023

DOCDB simple family (application)

**CN 2021102816 W 20210628**; EP 21947411 A 20210628