(12) International Application Status Report

Received at International Bureau: 06 April 2015 (06.04.2015)
Information valid as of: 24 August 2015 (24.08.2015)
Report generated on: 18 January 2020 (18.01.2020)

(10) Publication number:
WO2015/141801

(43) Publication date:
24 September 2015 (24.09.2015)

(26) Publication language:
Japanese (JA)

(21) Application Number:
PCT/JP2015/058344

(22) Filing Date:
19 March 2015 (19.03.2015)

(25) Filing language:
Japanese (JA)

(31) Priority number(s):
2014-056711 (JP)

(31) Priority date(s):
19 March 2014 (19.03.2014)

(31) Priority status:
Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:
H04J 11/00 (2006.01); **H04B 1/10** (2006.01)

(71) Applicant(s):
MITSUBISHI ELECTRIC CORPORATION [JP/JP]; 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 1008310 (JP) *(for all designated states)*

(72) Inventor(s):
ISHIOKA, Kazuaki; c/o Mitsubishi Electric Corporation, 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 1008310 (JP)

(74) Agent(s):
SAKAI, Hiroaki; Sakai International Patent Office, Toranomon Mitsui Building, 8-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 1000013 (JP)

(54) Title (EN): RECEIVING DEVICE

(54) Title (FR): DISPOSITIF DE RÉCEPTION

(54) Title (JA): 受信装置

(57) Abstract:

(EN): This receiving device is a receiver (1) that receives a signal that includes a null symbol, and is provided with: a null extraction unit (13) that extracts a null symbol from a received signal; a power calculation unit (14) that calculates the power of each null symbol extracted by the null extraction unit (13); a two-dimensional filter unit (15) that executes a plurality of types of filtering on each null symbol power calculated by the power calculation unit (14) and finds a plurality of types of average power values; and a standardization unit (16) that standardizes data symbols included in the received signal, on the basis of values for which non-linear processing was performed on the average power values obtained by the two-dimensional filter unit (15).

(FR): L'invention concerne un dispositif de réception qui est un récepteur (1) qui reçoit un signal qui comporte un symbole nul, et comprend : une unité d'extraction de symbole nul (13) qui extrait un symbole nul à partir d'un signal reçu ; une unité de calcul de puissance (14) qui calcule la puissance de chaque symbole nul extrait par l'unité d'extraction de symbole nul (13) ; une unité de filtre à deux dimensions (15) qui exécute une pluralité de types de filtrage sur chaque puissance de symbole nul calculée par l'unité de calcul de puissance (14) et recherche une pluralité de types de valeurs de puissance moyennes ; et une unité de normalisation (16) qui normalise des symboles de données inclus dans le signal reçu sur la base des valeurs pour lesquelles un traitement non linéaire a été effectué sur les valeurs de puissance moyennes obtenues par l'unité de filtre à deux dimensions (15).

(JA): 本発明にかかる受信装置は、ヌルシンボルが含まれた信号を受信する受信機１であって、受信した信号からヌルシンボルを抽出するヌル抽出部１３と、ヌル抽出部１３で抽出された各ヌルシンボルの電力を計算する電力計算部１４と、電力計算部１４で計算された各ヌルシンボルの電力に対して複数種類のフィルタリングを実行し、複数種類の電力平均値を求める２次元フィルタ部１５と、２次元フィルタ部１５が求めた電力平均値の非線形処理を行った値に基づいて、受信した信号に含まれているデータシンボルを規格化する規格化部１６と、を備える。

International search report:

Received at International Bureau: 01 June 2015 (01.06.2015) [JP]

International Report on Patentability (IPRP) Chapter II of the PCT:
Not available

(81) Designated States:
AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR
African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG
African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW
Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM