Title (en)

WIRELESS COMMUNICATIONS DEVICE INCLUDING A JOINT DEMODULATION FILTER FOR CO-CHANNEL INTERFERENCE REDUCTION AND RELATED METHODS

Title (de)

DRAHTLOSES KOMMUNIKATIONSGERÄT MIT EINEM VERBUND-DEMODULATIONSFILTER ZUR COKANAL-STÖRUNGSREDUKTION UND DIESBEZÜGLICHE VERFAHREN

Title (fr)

DISPOSITIF DE COMMUNICATIONS HERTZIENNES A FILTRE DE DEMODULATION COMMUN POUR LA REDUCTION DE BROUILLAGE DANS LE MEME CANAL, ET PROCEDES CONNEXES

Publication

EP 1925091 A4 20090114 (EN)

Application

EP 06790561 A 20060823

Priority

- CA 2006001378 W 20060823
- CA 2516910 A 20050823

Abstract (en)

[origin: WO2007022626A1] A wireless communications device may include a housing and a wireless transmitter and a wireless receiver carried by the housing. The wireless receiver may include a joint demodulation filter for reducing co-channel interference between a desired signal and a co-channel interfering signal which may include an input receiving samples of the desired signal and the co-channel interfering signal, a Viterbi decoder, and a first signal path between the input and the Viterbi decoder comprising a first filter. The joint demodulation filter may further include a second signal path between the input and the Viterbi decoder and comprising a linear finite impulse response (FIR) modeler for generating a channel impulse response estimate for the co-channel interfering signal. Additionally, a third signal path may be between the input and the Viterbi decoder and include a whitened matched filter for generating a channel impulse response estimate for the desired signal.

IPC 8 full level

H04B 1/10 (2006.01); **H03M 13/41** (2006.01); **H04B 1/16** (2006.01); **H04L 25/02** (2006.01)

CPC (source: EP KR)

H03D 1/00 (2013.01 - KR); **H03M 13/41** (2013.01 - KR); **H04B 1/109** (2013.01 - EP); **H04B 1/16** (2013.01 - KR); **H04L 1/0047** (2013.01 - EP); **H04L 1/0054** (2013.01 - EP); **H04L 1/20** (2013.01 - EP); **H04L 25/0204** (2013.01 - EP); **H04L 25/0212** (2013.01 - EP); **H04L 25/03292** (2013.01 - EP); **H04L 25/03305** (2013.01 - EP); **H04W 88/02** (2013.01 - KR)

Citation (search report)

- [X] EP 0952711 A2 19991027 - LUCENT TECHNOLOGIES INC [US]
- [A] US 2004192215 A1 20040930 - ONGGOSANUSI EKO N [US], et al
- [A] US 2003118131 A1 20030626 - KOBYLINSKI RICHARD A [US], et al
- See references of WO 2007022626A1

Citation (examination)

- UNGERBOECK G: "ADAPTIVE MAXIMUM-LIKELIHOOD RECEIVER FOR CARRIER-MODULATED DATA-TRANSMISSION SYSTEMS", IEEE TRANSACTIONS ON COMMUNICATIONS, IEEE SERVICE CENTER, PISCATAWAY, NJ. USA, vol. COM-22, no. 5, 1 May 1974 (1974-05-01), pages 624 - 636, XP000670408, ISSN: 0090-6778, DOI: 10.1109/TCOM.1974.1092267
- FORNEY G D: "MAXIMUM-LIKELIHOOD SEQUENCE ESTIMATION OF DIGITAL SEQUENCES IN THE PRESENCE OF INTERSYMBOL INTERFERENCE", IEEE TRANSACTIONS ON INFORMATION THEORY, IEEE, US, vol. IT-18, no. 3, 1 May 1972 (1972-05-01), pages 363 - 378, XP000760864, ISSN: 0018-9448, DOI: 10.1109/TIT.1972.1054829

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

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