

Title (en)

JOINT DEMODULATION FILTER FOR CO-CHANNEL INTERFERENCE REDUCTION AND RELATED METHODS

Title (de)

VERBUND-DEMODULATIONSFILTER ZUR COKANAL-STÖRUNGSREDUKTION UND DIESBEZÜGLICHE VERFAHREN

Title (fr)

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

Publication

EP 1925092 A4 20090114 (EN)

Application

EP 06790562 A 20060823

Priority

- CA 2006001379 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

H03M 13/41 (2006.01); **H04B 1/10** (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)

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- [A] US 2004192215 A1 20040930 - ONGGOSANUSI EKO N [US], et al
- [A] US 2003118131 A1 20030626 - KOBYLINSKI RICHARD A [US], et al
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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)

AL BA HR MK RS

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