Title (en)

ESTIMATION AND REMOVAL OF INTERSYMBOL INTERFERENCE IN MULTICARRIER SIGNALS

Title (de)

SCHÄTZUNG SOWIE BESEITIGUNG VON INTERSYMBOLINTERFERENZ IN MEHRTRÄGERSIGNALEN

Title (fr)

ESTIMATION ET ELIMINATION DE BROUILLAGE ENTRE SYMBOLES DANS DES SIGNAUX DE SYSTEME A PORTEUSES MULTIPLES

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Application

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Abstract (en)

[origin: EP1185047A1] A method and arrangement are proposed for compensating for intersymbol interference (ISI) in a multi-carrier transmission system. Compensation is based on the generation of an estimate of the ISI transient tail generated between consecutively transmitted symbols and subtracting this from the received signals. Each symbol includes a cyclic extension as prefix. The tail is generated from a tail portion isolated from the cyclic prefix. This tail portion is then used in a filter arrangement (104, 105) adapted to generate at least an estimate of the full transient signal. The filter function may be proceeded by a processing module for generating the initial conditions of the filter function from the transient signal portion. The full transient is then generated by inputting a predetermined value into the filter function. The processing module (104) may be a second filter or processing arrangement adapted to perform calculations. The filter function may alternatively be an adaptive filter function that generates a full transient from the transient portion. The adaptive filter may be configured prior to use with a training sequence. Alternatively, or in addition, the adaptive filter function may also be adjusted using each received symbol to generate an error update signal. <IMAGE>

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