

Title (en)
Method and apparatus for concatenated convolutional encoding and interleaving

Title (de)
Verfahren und Vorrichtung zur verketteten Faltungskodierung und Verschachtelung

Title (fr)
Procédé et dispositif d'entrelacement et de codage convolutionnel à concatenation

Publication
EP 1226663 B9 20130904 (EN)

Application
EP 00975527 A 20001101

Priority

- US 0030032 W 20001101
- US 43386199 A 19991104

Abstract (en)
[origin: US6229824B1] A method and apparatus encode a source data stream via convolutional encoding. Plural encoded data streams are interleaved and transmitted on plural transmission channels. Data groups generated via convolutional encoding are interleaved via time-interleaving functions to disperse selected bits within puncture groups of the data groups, bits in between data groups, and bits in selected sets of data groups to facilitate reconstruction of the source data stream from at least a portion of the interleaved data stream received on at least one transmission channel. The time-interleaving functions are selected to facilitate reconstruction of the source data stream from one transmission channel following continuous blockage. Subsets of bits of puncture groups are selected to allow reconstruction of the source data stream from more than one of the transmission channels using a minimum number of subsets. Multiple combinations of subsets can be received on both transmission channels to reconstruct the source data stream following blockage of one channel. Decoding is performed via a Viterbi decoder.

IPC 8 full level
H03M 13/23 (2006.01); **H03M 13/27** (2006.01); **H04B 7/02** (2006.01); **H04B 7/195** (2006.01); **H04J 3/00** (2006.01); **H04J 3/04** (2006.01); **H04L 1/00** (2006.01); **H04L 1/06** (2006.01); **H04L 1/08** (2006.01)

CPC (source: EP US)
H04L 1/0041 (2013.01 - EP US); **H04L 1/0057** (2013.01 - EP US); **H04L 1/0059** (2013.01 - EP US); **H04L 1/0065** (2013.01 - EP US); **H04L 1/0071** (2013.01 - EP US); **H04L 1/065** (2013.01 - EP US); **H04L 1/08** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
US 6229824 B1 20010508; AU 1356901 A 20010514; CA 2390196 A1 20010510; CA 2390196 C 20100323; EP 1226663 A1 20020731; EP 1226663 A4 20061206; EP 1226663 B1 20120704; EP 1226663 B9 20130904; JP 2003513586 A 20030408; MX PA02004316 A 20040514; WO 0133737 A1 20010510

DOCDB simple family (application)
US 43386199 A 19991104; AU 1356901 A 20001101; CA 2390196 A 20001101; EP 00975527 A 20001101; JP 2001535315 A 20001101; MX PA02004316 A 20001101; US 0030032 W 20001101