Title (en)

DIGITAL HIDDEN DATA TRANSPORT (DHDT)

Title (de)

DIGITAL VERSTECKTE DATENÜBERTRAGUNG

Title (fr)

TRANSPORT DE DONNEES NUMERIQUES CACHEES

Publication

EP 1080545 A4 20011114 (EN)

Application

EP 99918720 A 19990420

Priority

- US 9908675 W 19990420
- US 8518698 P 19980512

Abstract (en)

[origin: WO9959258A1] A system for embedding auxiliary digital information (Di) into an existing primary digitally encoded signal (Xn) to form an unobjectionable composite digital signal (Cn). Auxiliary data bits (Di) modulate a pseudo-random (e.g., PN) sequence (125) to provide an auxiliary data sequence (160) that is used to modify the Least Perceptually Significant Bits (LPSBs) (180) of successive multi-bit samples (120) of the primary signal. In a cross-term compensation embodiment (300, 400, 1000), a correlation (V) between the PN sequence and the sample bits is determined, and compared to the auxiliary data bits (Di) to determine whether there is a desired correspondence. The LPSBs in the samples are toggled (360), if necessary, to provide the desired correspondence. The selection of LPSBs to modify accounts for a desired noise level of the auxiliary data (Di) in the primary signal (Xn). LPSBs may be selected to be modified based on a sparse PN sequence (250) to achieve the desired noise level and to conceal the presence of the auxiliary data (Di). The data to be hidden can be any digital data, while the primary signal is any uncompressed or compressed digitally sampled process, including, for example, audio or video data.

IPC 1-7

G11B 20/00; H04B 1/707

IPC 8 full level

G10K 15/02 (2006.01); **G10L 19/018** (2013.01); **G11B 20/00** (2006.01); **H04B 1/707** (2011.01)

CPC (source: EP)

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DOCDB simple family (application)

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