

Title (en)  
ENHANCED ENCODING OF DTMF AND OTHER SIGNALLING TONES

Title (de)  
VERBESSERTE DTMF- UND SIGNALISIERUNGSTÖNENKODIERUNG

Title (fr)  
CODAGE AVANCE DE DTMF ET D'AUTRES TONALITES DE SIGNALISATION

Publication  
**EP 0913034 A2 19990506 (EN)**

Application  
**EP 97931602 A 19970717**

Priority

- CA 9700516 W 19970717
- US 2191196 P 19960717

Abstract (en)  
[origin: WO9804046A2] In a method and device for quantizing a spectrum vector, supplied at recurrent time intervals, to produce a spectrum index, a spectrum-vector quantization codebook including a first voice-signal quantization codebook portion and a second non-voice signal quantization codebook portion is used. Whether the spectrum vector represents a voice signal or a non-voice signal is detected. When the spectrum vector represents a voice signal, the first codebook portion is searched for quantizing the spectrum vector and producing the spectrum index. The second codebook portion is searched for quantizing the spectrum vector and producing the spectrum index when the spectrum vector represents a non-voice signal. According to a first alternative, the first and second codebook portions are searched by measuring a weighted distance between the spectrum vector and the entries of these two codebook portions, and the spectrum vector is considered as representing a non-voice signal when the smallest weighted distance is the weighted distance measured between the spectrum vector and one entry of the second codebook portion. According to a second alternative, a weighted distance is measured between the spectrum vector and the entries of the second codebook portion, and the spectrum vector is considered as representing a non-voice signal when the weighted distance measured between the spectrum vector and one entry of the second codebook portion is smaller than a predetermined threshold.

IPC 1-7  
**H03M 7/42**

IPC 8 full level  
**H03M 7/42** (2006.01); **H04Q 7/22** (2006.01)

CPC (source: EP)  
**G10L 19/07** (2013.01); **G10L 19/20** (2013.01); **G10L 25/78** (2013.01); **G10L 2019/0016** (2013.01)

Citation (search report)  
See references of WO 9804046A2

Designated contracting state (EPC)  
DE FR GB SE

DOCDB simple family (publication)  
**WO 9804046 A2 19980129; WO 9804046 A3 19980326; AU 3534597 A 19980210; CA 2258183 A1 19980129; EP 0913034 A2 19990506**

DOCDB simple family (application)  
**CA 9700516 W 19970717; AU 3534597 A 19970717; CA 2258183 A 19970717; EP 97931602 A 19970717**