

Title (en)  
Pitch lag estimation system

Title (de)  
System zur Schätzung der Grundfrequenz

Title (fr)  
Système d'estimation de la fréquence fondamentale

Publication  
**EP 0713208 B1 20020220 (EN)**

Application  
**EP 95118142 A 19951117**

Priority  
US 34249494 A 19941121

Abstract (en)  
[origin: EP0713208A2] A pitch estimation device and method utilizing a multi-resolution approach to estimate speech pitch lag. The system includes sampling the speech 602 and applying, alternately, a discrete Fourier transform 606 and squaring the result 608. A DFT on the squared amplitude is then performed 610 to transform the speech samples into another domain. An initial pitch lag can then be found with lower resolution. After getting the low-resolution pitch lag estimate, a refined algorithm is applied 618 to get a higher-resolution pitch lag. The refined algorithm is based on minimizing the prediction error in the time domain. The refined pitch lag then can be used directly in the speech coding. <IMAGE>

IPC 1-7  
**G10L 11/04**; **G10L 19/08**

IPC 8 full level  
**G10L 19/02** (2013.01); **G10L 19/038** (2013.01); **G10L 19/04** (2013.01); **G10L 19/09** (2013.01); **G10L 19/16** (2013.01); **G10L 21/003** (2013.01); **G10L 21/04** (2013.01); **G10L 25/90** (2013.01)

CPC (source: EP)  
**G10L 25/90** (2013.01); **G10L 25/24** (2013.01); **G10L 25/27** (2013.01); **G10L 2019/0011** (2013.01)

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0713208 A2 19960522**; **EP 0713208 A3 19971210**; **EP 0713208 B1 20020220**; DE 69525508 D1 20020328; DE 69525508 T2 20020620; JP H08211895 A 19960820

DOCDB simple family (application)  
**EP 95118142 A 19951117**; DE 69525508 T 19951117; JP 29526695 A 19951114