

Title (en)

Method and apparatus for noise reduction during speech transmission

Title (de)

Verfahren und Vorrichtung zur Geräuschunterdrückung bei der Sprachübertragung

Title (fr)

Procédé et dispositif pour la réduction de bruit durant la transmission de parole

Publication

**EP 1091349 B1 20050209 (DE)**

Application

**EP 00250301 A 20000908**

Priority

DE 19948308 A 19991006

Abstract (en)

[origin: EP1091349A2] The method involves using a multi-layer self-organising neural network with feedback. A minima detection layer, a reaction layer, a diffusion layer and an integration layer define a filter function ( $F(f,T)$ ) for noise filtering. The filter function is used to convert a spectrum  $B(f,T)$  free of noise, into a noise-free speech signal ( $y(t)$ ) by inverse Fourier transformation. The signal delay caused by processing the signal is so short that the filter can operate in real-time for telecommunication. All neurons are supplied with an externally set parameter  $K$ , the size of which defines the degree of noise suppression of the whole filter. An Independent claim is included for an apparatus for noise suppression during speech transmission.

IPC 1-7

**G10L 21/02**; G06F 15/18

IPC 8 full level

**G06F 15/18** (2006.01); **G10L 21/02** (2006.01); **G10L 21/0208** (2013.01); **G10L 25/30** (2013.01)

CPC (source: EP US)

**G10L 21/0208** (2013.01 - EP US); **G10L 25/30** (2013.01 - EP US)

Cited by

EP1585112A1; CN104036784A; CN114944154A; EP2151822A1; CN102124518A; AU2009278263B2; US9064498B2; WO2010015371A1

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