

Title (en)  
Enhanced estimation of at least one target signal

Title (de)  
Verbesserte Schätzung von mindestens einem Zielsignal

Title (fr)  
Estimation améliorée d'au moins un signal cible

Publication  
**EP 2840570 A1 20150225 (EN)**

Application  
**EP 13181563 A 20130823**

Priority  
EP 13181563 A 20130823

Abstract (en)  
Method for estimation of at least one signal of interest ( $s_1(t), s_1(n)$ ) from at least one discrete-time signal ( $y(n)$ ), said method comprising the steps of a) transforming the at least one discrete-time signal ( $y(n)$ ) into a frequency domain to obtain a complex spectrum  $F \# \{ y_n | n = 0 \text{ to } N - 1 \}$  of the at least one discrete-time signal ( $y(n)$ ); b) performing an amplitude estimation on the complex spectrum  $F \# \{ y_n | n = 0 \text{ to } N - 1 \}$  to obtain an estimated amplitude spectrum of the at least one signal of interest ( $s_1(t), s_1(n)$ ); c) performing a phase estimation on the complex spectrum  $F \# \{ y_n | n = 0 \text{ to } N - 1 \}$ , said phase estimation being an amplitude-aware phase estimation using an input signal ( $s_1(n)$ ) to obtain an estimated phase spectrum of the at least one signal of interest ( $s_1(t), s_1(n)$ ); d) performing an amplitude estimation on the complex spectrum  $F \# \{ y_n | n = 0 \text{ to } N - 1 \}$ , said amplitude estimation being a phase-aware amplitude estimation using the result of the phase estimation of step c) to obtain an enhanced complex spectrum  $F \# \{ s_1(n) | n = 0 \text{ to } N - 1 \}$  of the at least one signal of interest ( $s_1(t), s_1(n)$ ).

IPC 8 full level  
**G10L 21/0208** (2013.01); **G10L 25/03** (2013.01)

CPC (source: EP)  
**G10L 21/0208** (2013.01); **G10L 25/03** (2013.01)

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• [A] EPHRAIM Y ET AL: "Speech Enhancement Using a- Minimum Mean- Square Error Short-Time Spectral Amplitude Estimator", IEEE TRANSACTIONS ON ACOUSTICS, SPEECH AND SIGNAL PROCESSING, IEEE INC. NEW YORK, USA, vol. ASSP-32, no. 6, 1 December 1984 (1984-12-01), pages 1109 - 1121, XP002435684, ISSN: 0096-3518, DOI: 10.1109/TASSP.1984.1164453

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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2840570 A1 20150225**; EP 3036739 A1 20160629; WO 2015024940 A1 20150226

DOCDB simple family (application)  
**EP 13181563 A 20130823**; EP 14753072 A 20140819; EP 2014067667 W 20140819