

Title (en)  
ACTIVE NOISE REDUCTION DEVICE

Title (de)  
AKTIVE RAUSCHVERMINDERUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF DE RÉDUCTION ACTIVE DU BRUIT

Publication  
**EP 1772852 A4 20110824 (EN)**

Application  
**EP 06768329 A 20060721**

Priority  
• JP 2006314451 W 20060721  
• JP 2005210920 A 20050721

Abstract (en)  
[origin: EP1772852A1] An active noise reducing device includes processing circuit (101) which includes sine wave generator (102) for generating a sine wave having a specific frequency, cosine wave generator (103) for generating a cosine wave having the same frequency as that of the sine wave, and two one-tap digital filters (104), (105) for processing the outputs from generators (102), (103). The processing circuit (101) also has two coefficient updating sections (106) and (107), which output a sum of outputs from digital filters (104) and (105). Updating sections (106) and (107) update respective coefficients of filters (104), (105) based on a sum of this output from updating sections (106) and (107) and respective inputs to updating sections (106) and (107), and the respective outputs from generators (102), (103). The noise reducing device also has adjusting circuit (108) for adjusting the phase and amplitude of an output from processing circuit (101), adjusting circuit (108) thus generates a control signal of opposite phase and equal in amplitude to original noise, so that random noise such as load noise can be reduced.

IPC 8 full level  
**B60R 11/02** (2006.01); **G10K 11/178** (2006.01)

CPC (source: EP US)  
**G10K 11/17854** (2017.12 - EP US); **G10K 11/17879** (2017.12 - EP US)

Citation (search report)  
• [I] US 2004240678 A1 20041202 - NAKAMURA YOSHIO [JP], et al  
• [A] US 5377274 A 19941227 - MEYER JOHN D [US], et al  
• [A] US 4677677 A 19870630 - ERIKSSON LARRY J [US]  
• [A] US 2005053244 A1 20050310 - ONISHI MASAHAIDE [JP], et al  
• [E] EP 1906384 A1 20080402 - MATSUSHITA ELECTRIC IND CO LTD [JP]  
• See references of WO 2007011011A1

Cited by  
US8064612B2; US11594209B2; US11315542B2; WO2014158693A1; US8958568B2; US11694670B2; US9177542B2; US11631392B2

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