Title (en)

Beamforming weights conditioning for efficient implementations of broadband beamformers

Title (de)

Anpassung der Gewichtsfaktoren für Strahlformung zur effizienten Implementierung von Breitband-Strahlformern

Title (fr)

Conditionner l'échantillonnage de la formation du faisceaux pour le realisation efficace de faisceaux à large bande

Publication

EP 1919251 A1 20080507 (EN)

Application

EP 06022602 A 20061030

Priority

EP 06022602 A 20061030

Abstract (en)

In a channel-based beamforming system in which beamforming weights are predetermined, an improvement of the beamforming design method comprising modifying each beamforming weight in the frequency domain by dividing each beamforming weight by a common characteristic established in the frequency response across an array of sensors prior to fitting each beamforming weight to a filter. Also provided is a weight-conditioning beamformer for providing spatial directivity. The weight conditioned beamformer comprises an array of sensors, corresponding beamforming filters fitted with conditioned beamforming weights, and a summer for summing the outputs of the filters. The conditioned beamforming weights are obtained by dividing each beamforming weight by a common characteristic established in the frequency response across an array of sensors prior to fitting each beamforming weight to the filter.

IPC 8 full level

H04R 3/00 (2006.01)

CPC (source: EP)

H04R 3/005 (2013.01); H04R 25/407 (2013.01); H04R 2430/03 (2013.01); H04R 2430/20 (2013.01)

Citation (search report)

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