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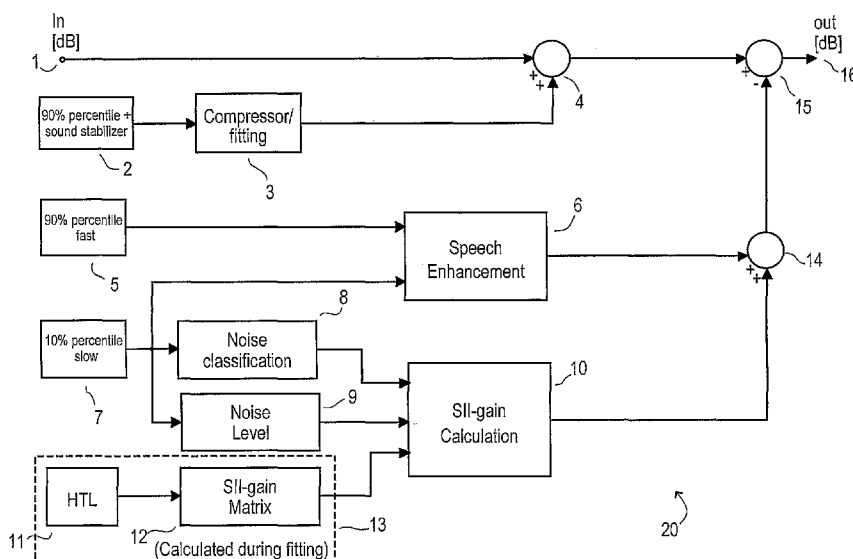
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(54) Title: HEARING AID AND A METHOD OF NOISE REDUCTION



(57) **Abstract:** A hearing aid (30) comprises a microphone (71), a signal processing means (20) and an output transducer (22), and the signal processing means (20) comprises a set of audio processing parameters mapped to a set of stored noise classes (12) and means (8) for classifying the background noise for the purpose of optimizing the frequency response in order to minimize the effects of the background noise. The hearing aid may further comprise a neural net for controlling the frequency response. A method for reducing a noise component in a signal is also devised, which method comprises classification of the noise component, comparing the noise component to a set of known noise components, and adapting the processed audio signals according to a corresponding set of frequency response parameters.