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With amended claims.(54) Title: **VOICE ACTIVITY DETECTOR FOR HALF-DUPLEX AUDIO COMMUNICATION SYSTEM**

(57) Abstract

A method (501, 502) of detecting voice in an audio signal comprises the steps of determining an average peak value (703, AP) representing an envelope of the audio signal, determining a running instance of audio signal standard deviation (702), which corresponds to one of a number of overlapping time intervals, and updating a power density function (PDF) by adding instances of noise to the PDF if the average peak of the audio signal exceeds the current level of the audio signal by a certain amount and if the current standard deviation value falls below a threshold for a predetermined time interval. A noise floor (NF) is located based on the mean value of the PDF (501), and, if the audio signal sustains a power level exceeding the noise floor, voice activity is determined to be present in the audio signal (502). The PDF is updated by a low confidence factor (1206) if all of the standard deviation values calculated during a certain period of time are below the threshold value and by a high confidence factor (1204) if all standard deviation values within a certain longer period of time period are below the threshold value.

