



US 20090067642A1

(19) **United States**(12) **Patent Application Publication**
Buck et al.(10) **Pub. No.: US 2009/0067642 A1**(43) **Pub. Date: Mar. 12, 2009**(54) **NOISE REDUCTION THROUGH SPATIAL
SELECTIVITY AND FILTERING****Publication Classification**(51) **Int. Cl.**
H04B 15/00

(2006.01)

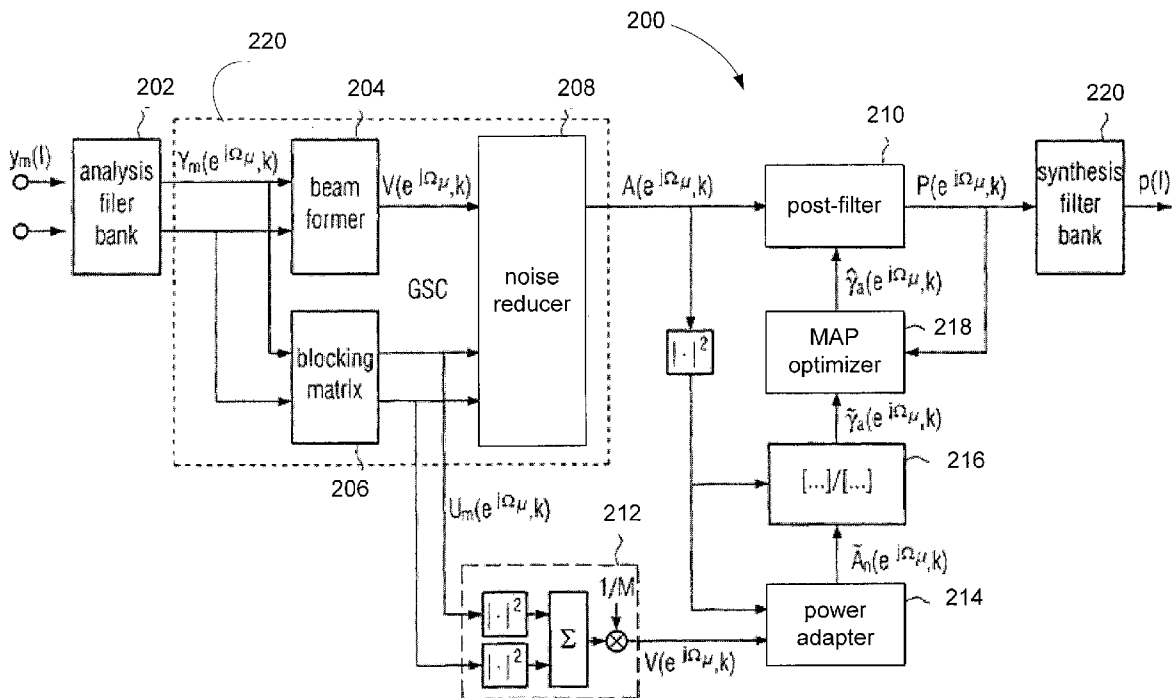
(52) **U.S. Cl.** **381/94.1**(57) **ABSTRACT**(76) **Inventors:** **Markus Buck**, Biberach (DE);
Tobias Wolff, Ulm (DE)

Correspondence Address:
HARMAN - BRINKS HOFER CHICAGO
Brinks Hofer Gilson & Lione
P.O. Box 10395
Chicago, IL 60610 (US)

(21) **Appl. No.:** **12/189,545**(22) **Filed:** **Aug. 11, 2008**(30) **Foreign Application Priority Data**

Aug. 13, 2007 (EP) 07015908.2

A signal processor uses input devices to detect speech or aural signals. Through a programmable set of weights and/or time delays (or phasing) the output of the input devices may be processed to yield a combined signal. The noise contributions of some or each of the outputs of the input devices may be estimated by a circuit element or a controller that processes the outputs of the respective input devices to yield power densities. A short-term measure or estimate of the noise contribution of the respective outputs of the input devices may be obtained by processing the power densities of some or each of the outputs of the respective input devices. Based on the short-term measure or estimate, the noise contribution of the combined signal may be estimated to enhance the combined signal when processed further. An enhancement device or post-filter may reduce noise more effectively and yield robust speech based on the estimated noise contribution of the combined signal.



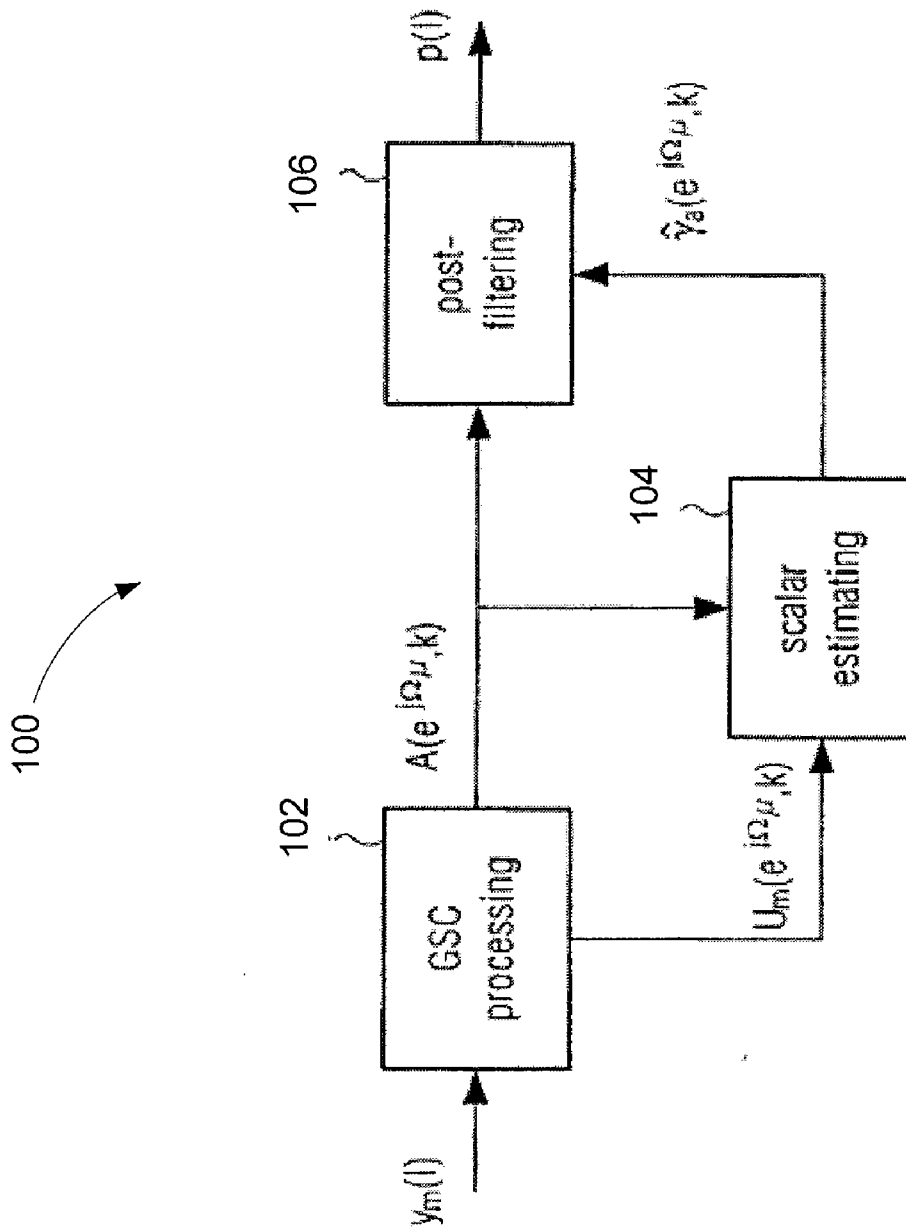


FIGURE 1

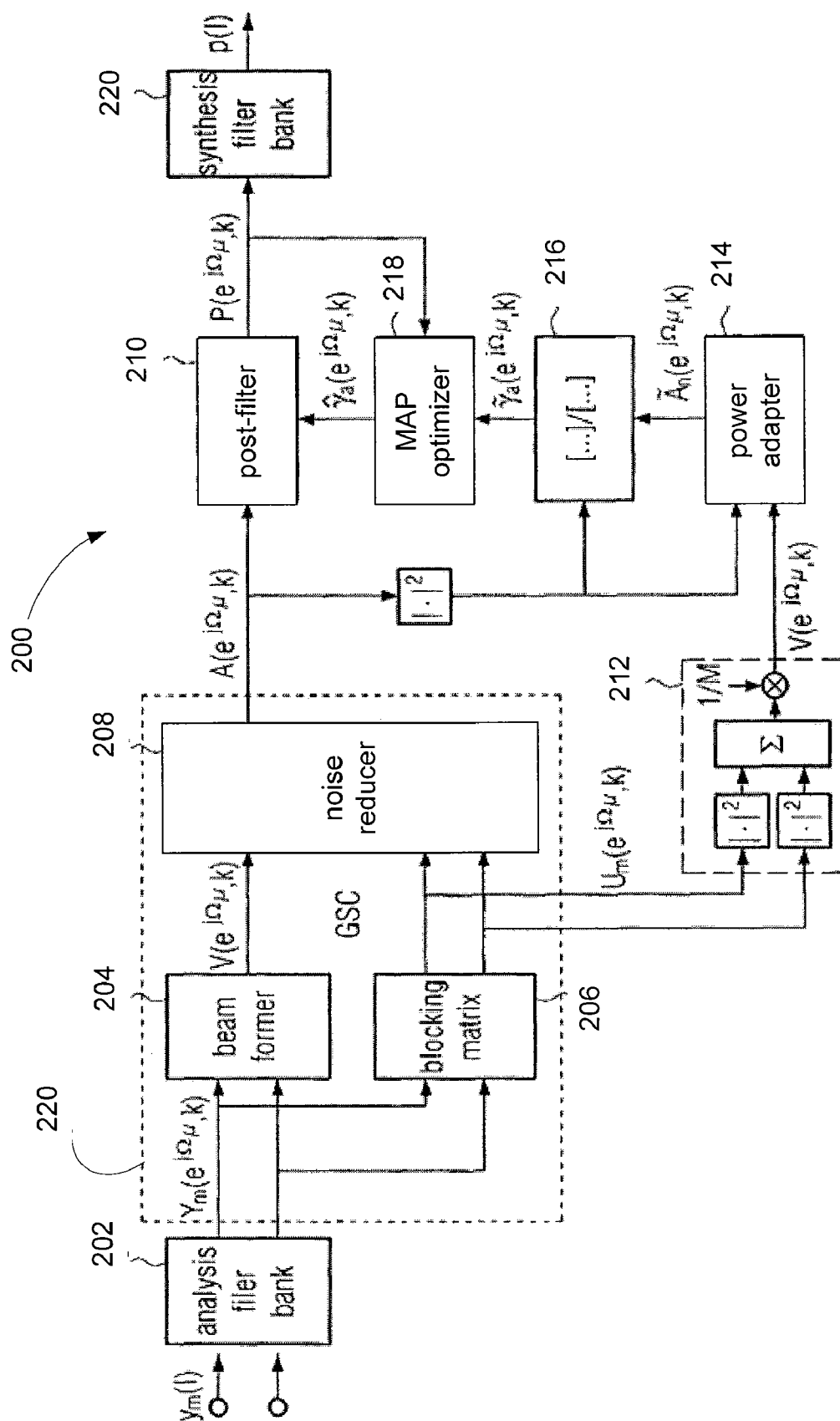


FIGURE 2

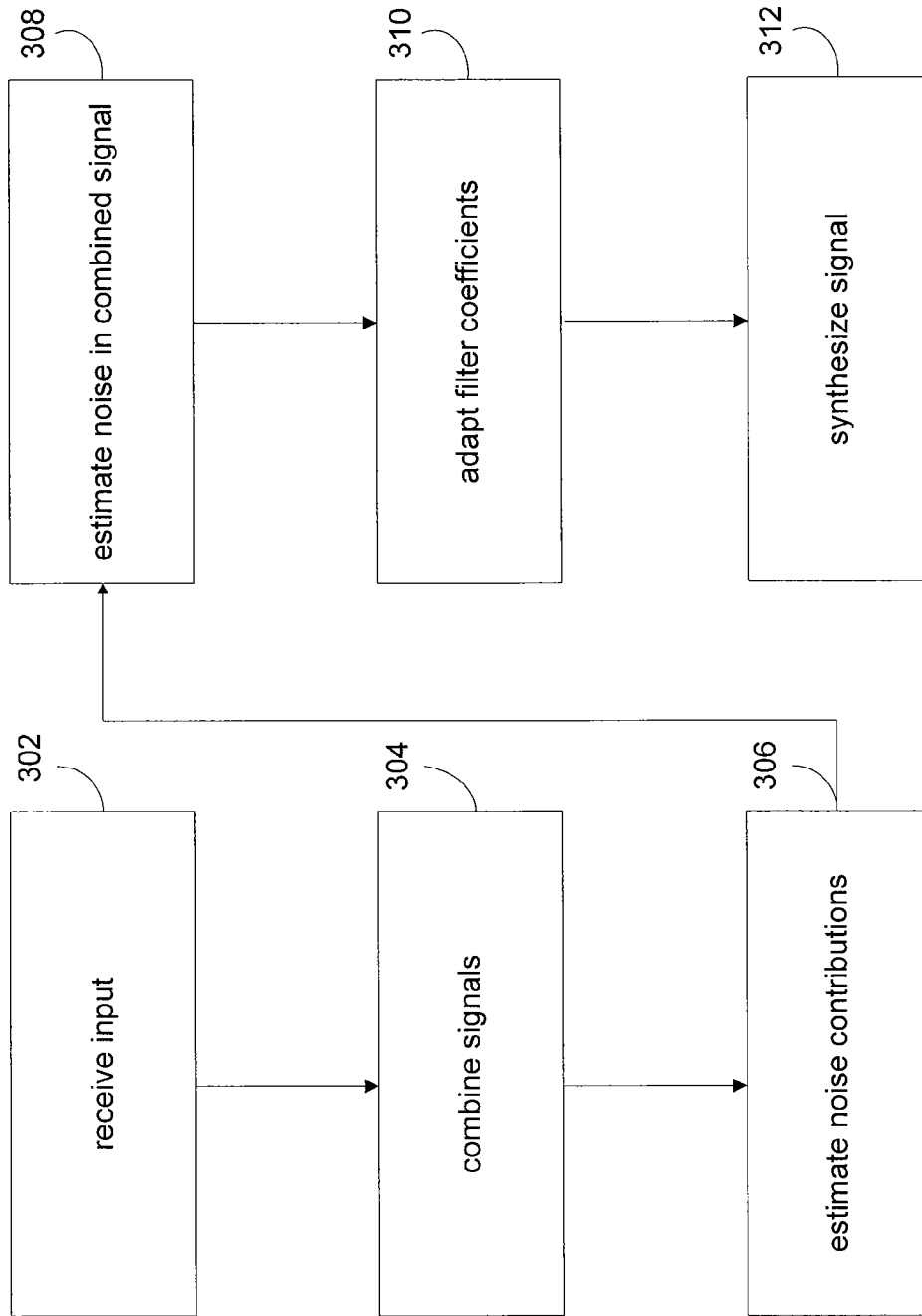


FIGURE 3

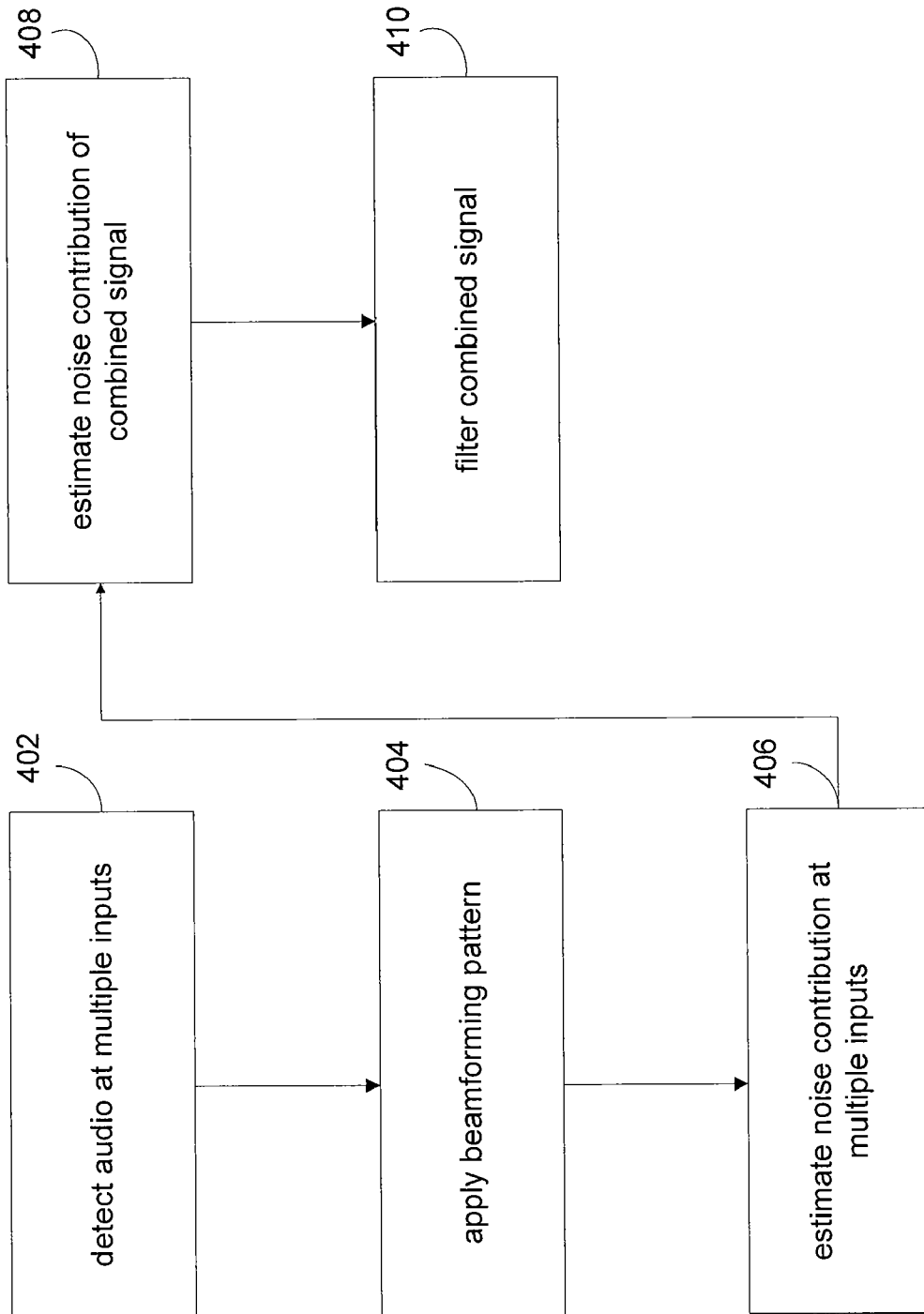


FIGURE 4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.