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Tang et al.

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(54) **CLEAR CHANNEL ASSESSMENT IN WIRELESS COMMUNICATIONS**

(75) Inventors: **Hsiao-Cheng Tang**, San Jose, CA (US);
Yungping Hsu, Cupertino, CA (US);
Guorong Hu, Sunnyvale, CA (US);
Weishi Feng, San Jose, CA (US)

(73) Assignee: **Marvell International Ltd.**, Hamilton (BM)

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H04L 12/413 (2006.01)
H04L 12/28 (2006.01)

(52) **U.S. Cl.** **370/445**

(58) **Field of Classification Search** 370/445,
370/446, 447, 338, 462
See application file for complete search history.

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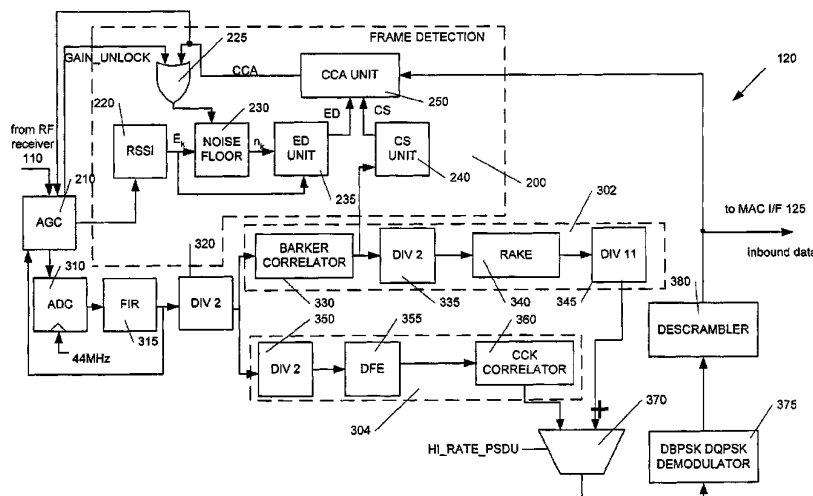
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Primary Examiner—Hassan Kizow
Assistant Examiner—Betty Lee

(57) **ABSTRACT**

Techniques for and apparatus capable of implementing packet detection and signal recognition in wireless communications systems are disclosed. In particular, the disclosed techniques and apparatus incorporate at least one of relative energy detection operable on assessment of a relative energy threshold for an inbound signal borne across an RF channel, carrier sense operable upon on assessment of at least one of a peak-to-sidelobe ratio and peak-to-peak distance defined by the inbound signal, and comparison operable upon demodulated data corresponding to the inbound signal as compared to predetermined preamble data. Clear channel assessment is performed based on determinations undertaken by one or more of the aforementioned relative energy detection, carrier sense and comparison operations.

145 Claims, 7 Drawing Sheets



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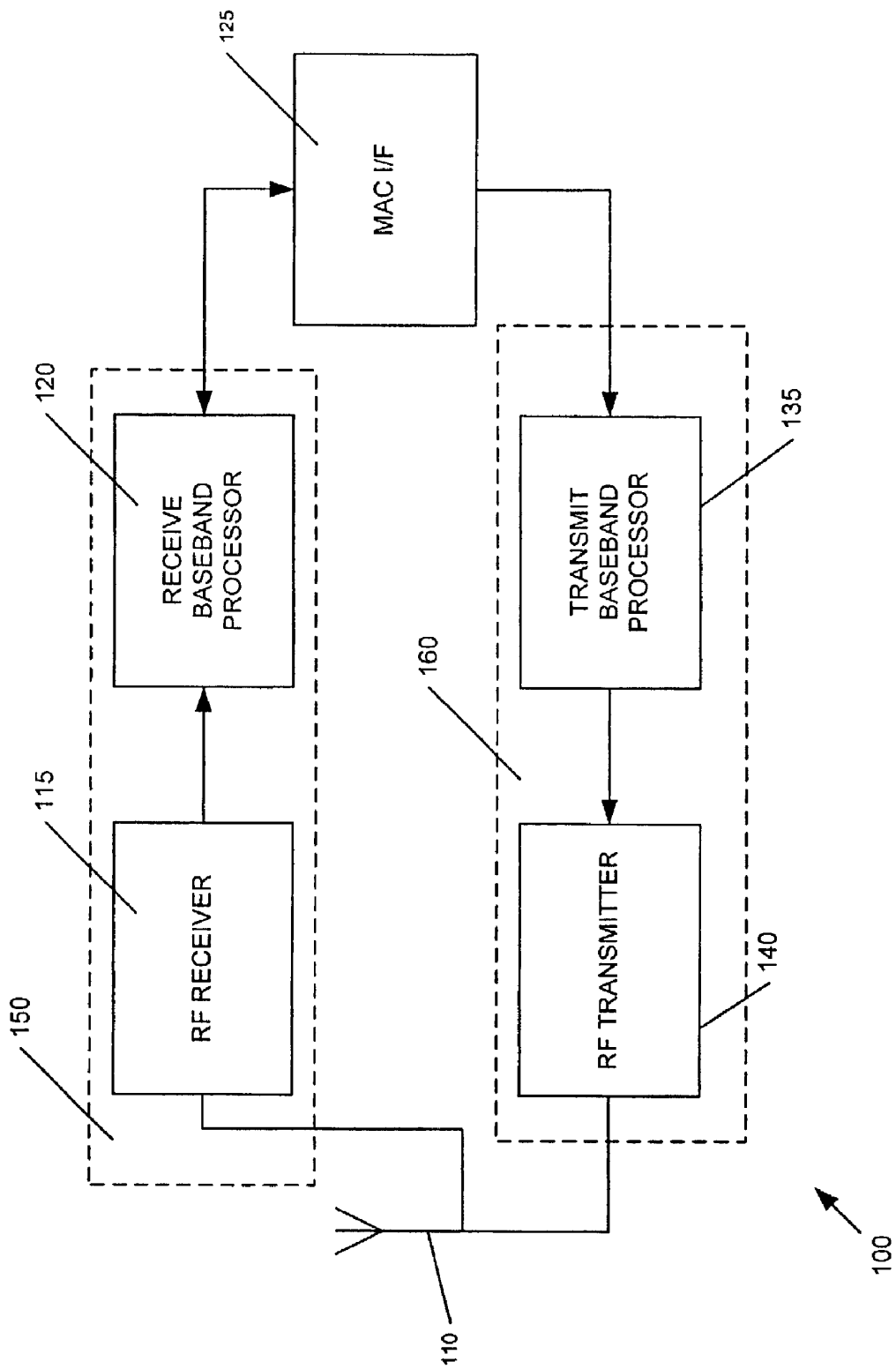


FIG. 1

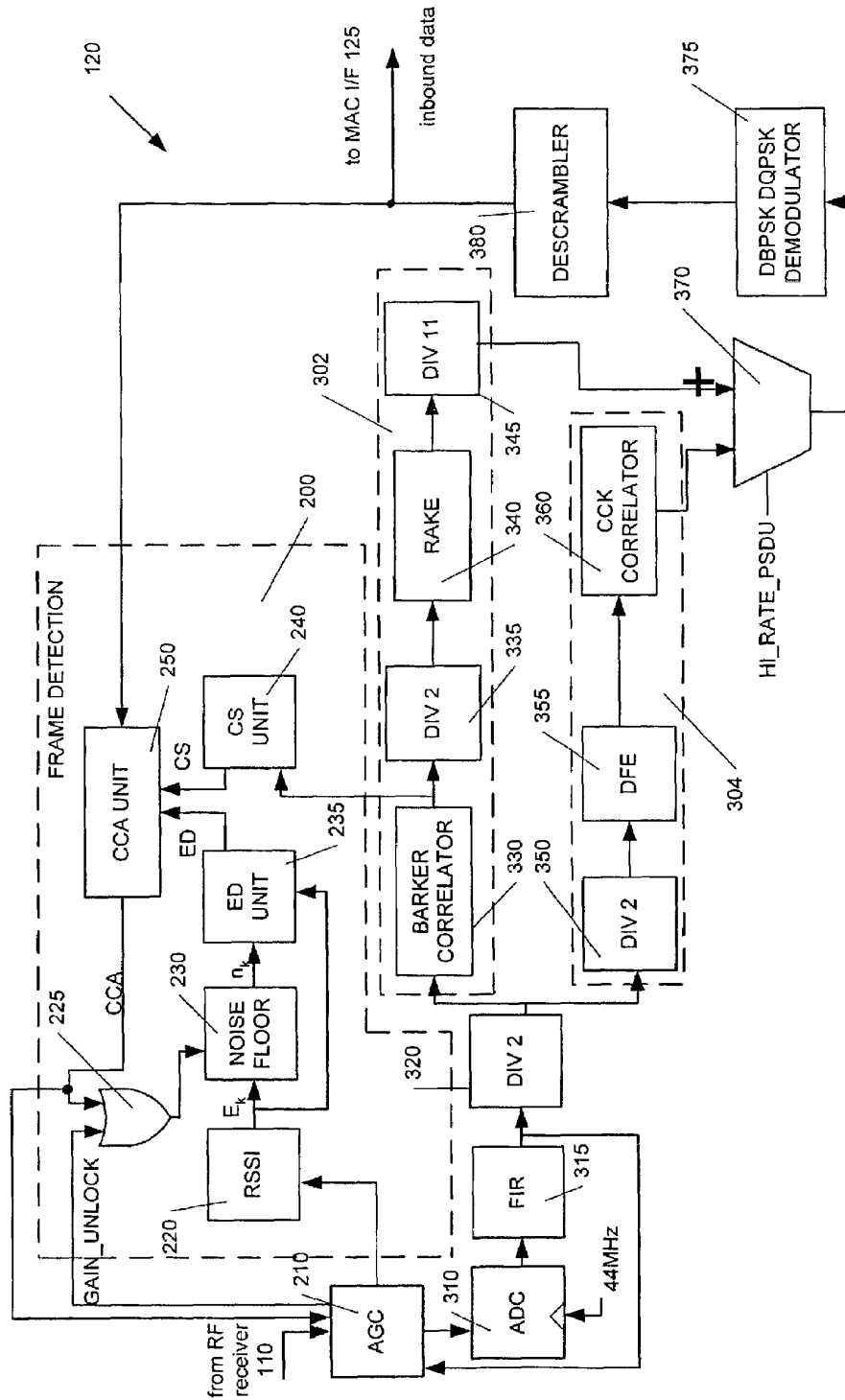


FIG. 2

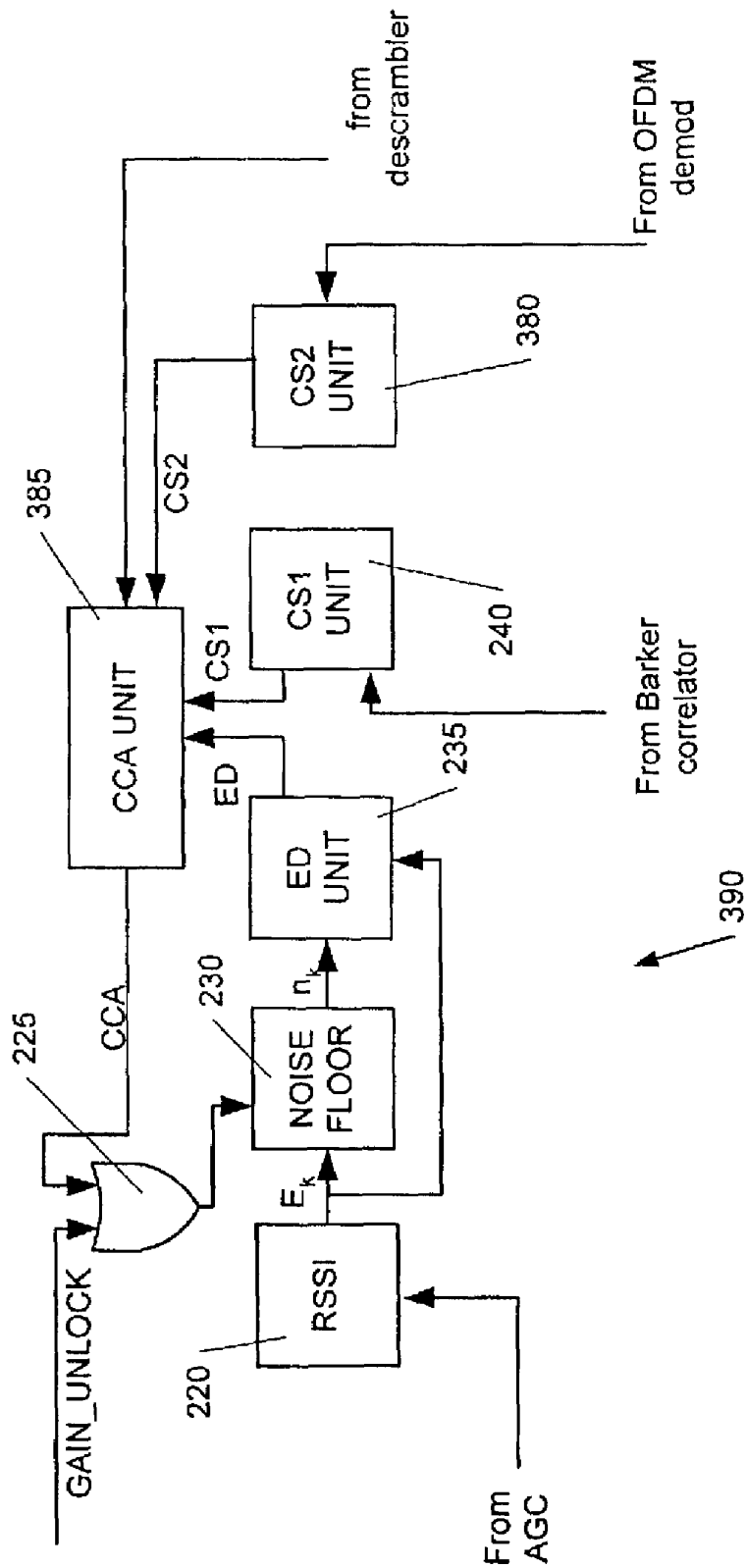


FIG. 3

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