(12) **United States Patent**
Tang et al.

(10) Patent No.: **US 7,403,539 B1**
(45) Date of Patent: **Jul. 22, 2008**

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

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1029 days.

(21) Appl. No.: **10/268,156**

(22) Filed: **Oct. 9, 2002**

(51) **Int. Cl.**
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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(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
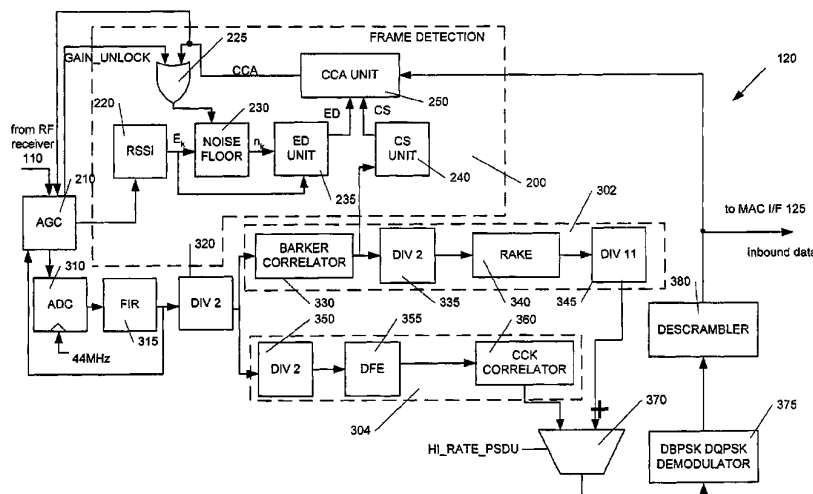
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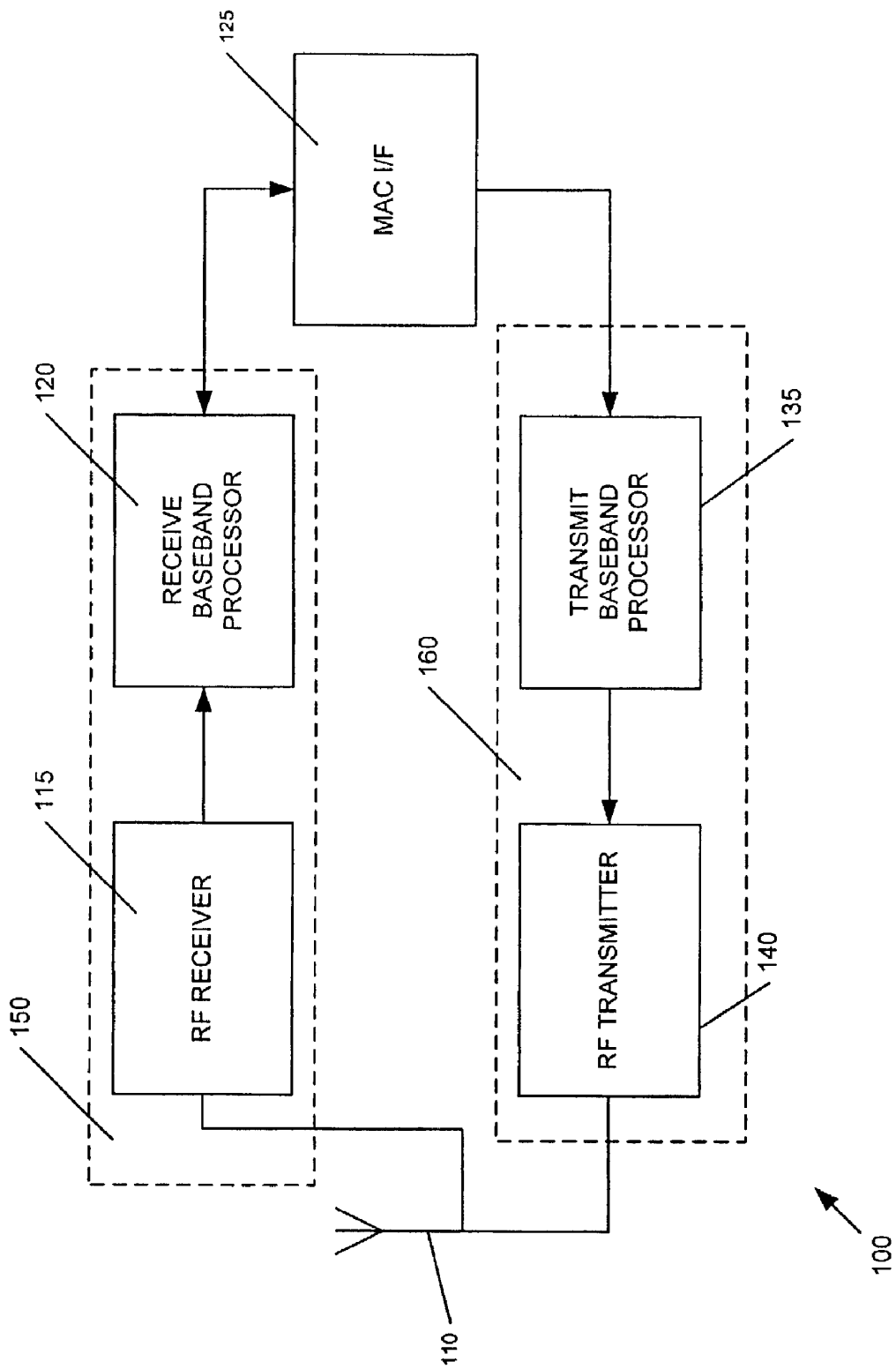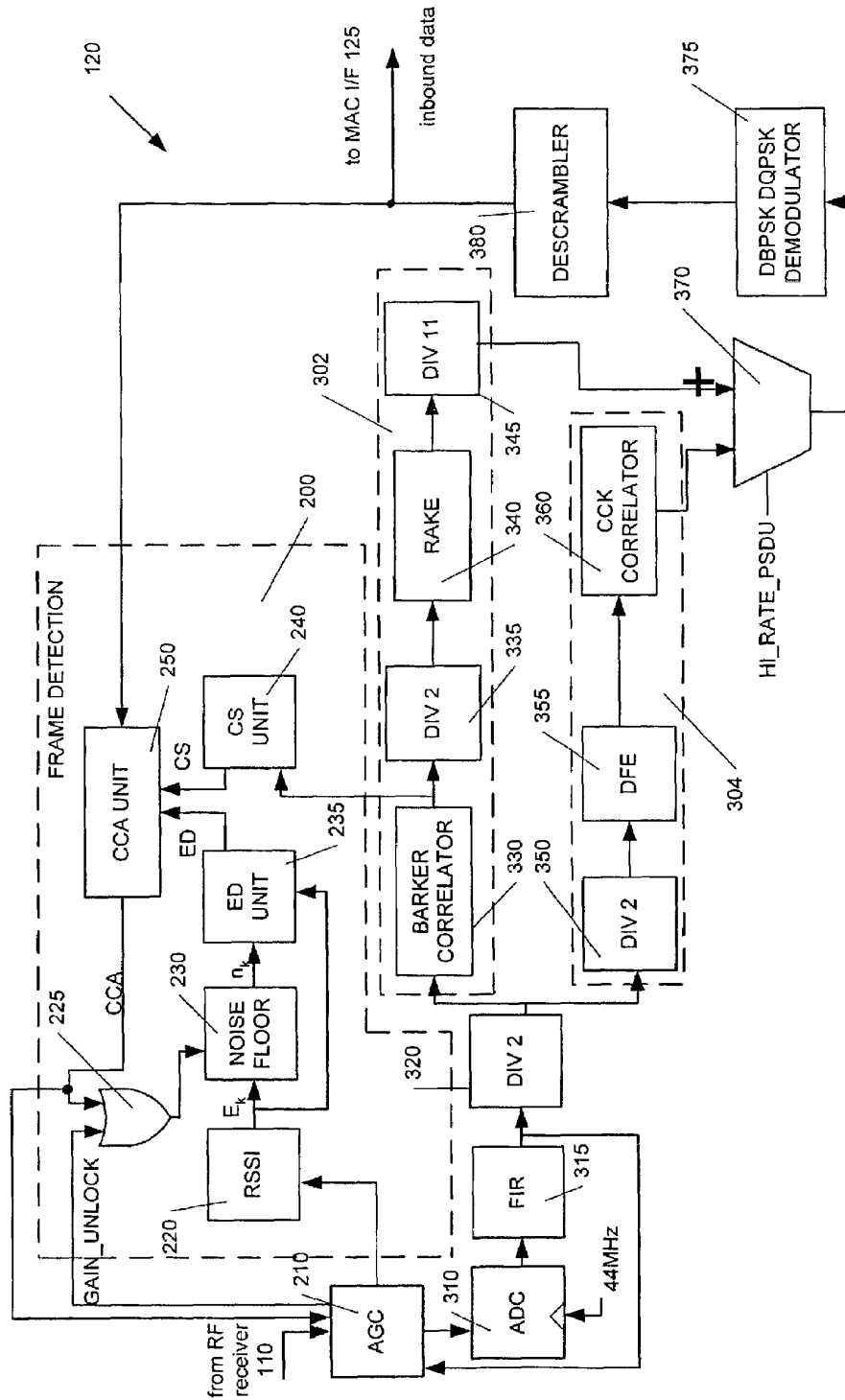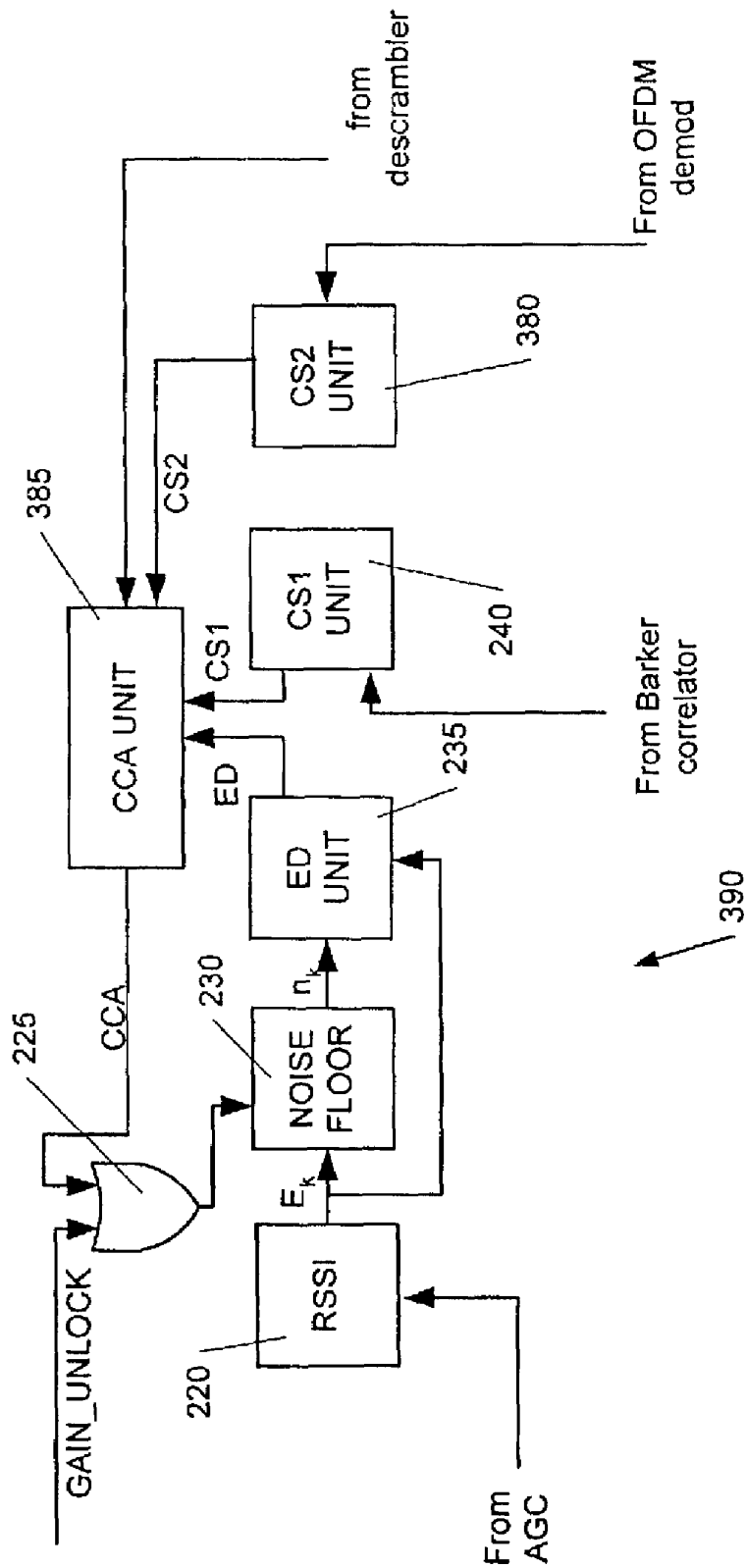
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FIG. 1

FIG. 2

FIG. 3

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