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(54) **DEVICE AND METHOD OF CHANNEL INFORMATION FEEDBACK FOR MULTI-CELL MIMO**

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CPC *H04B 7/0632* (2013.01); *H04B 7/024* (2013.01); *H04B 7/0626* (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

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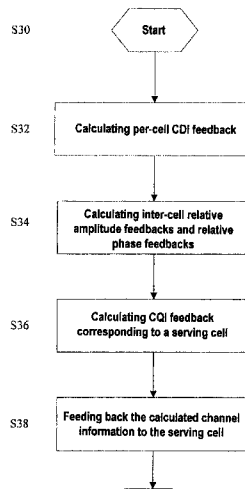
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(57)   **ABSTRACT**

A mobile terminal is provided in the present invention, comprising: a channel state information feedback calculating unit configured to calculate a channel state information feedback between the mobile terminal and a serving cell of the mobile terminal and those between the mobile terminal and all cooperating cells; a channel quality information feedback calculating unit configured to calculate a channel quality information feedback for the serving cell of the mobile terminal; and a transmission unit configured to transmit the channel state information feedbacks and the channel quality information feedback to the serving cell. The present invention greatly improves the performance of a LTE-A system and greatly reduces feedback overhead. The present invention is a scalable feedback solution and may be flexibly applied to various coordinated multipoint transmission scenarios.

9 Claims, 4 Drawing Sheets

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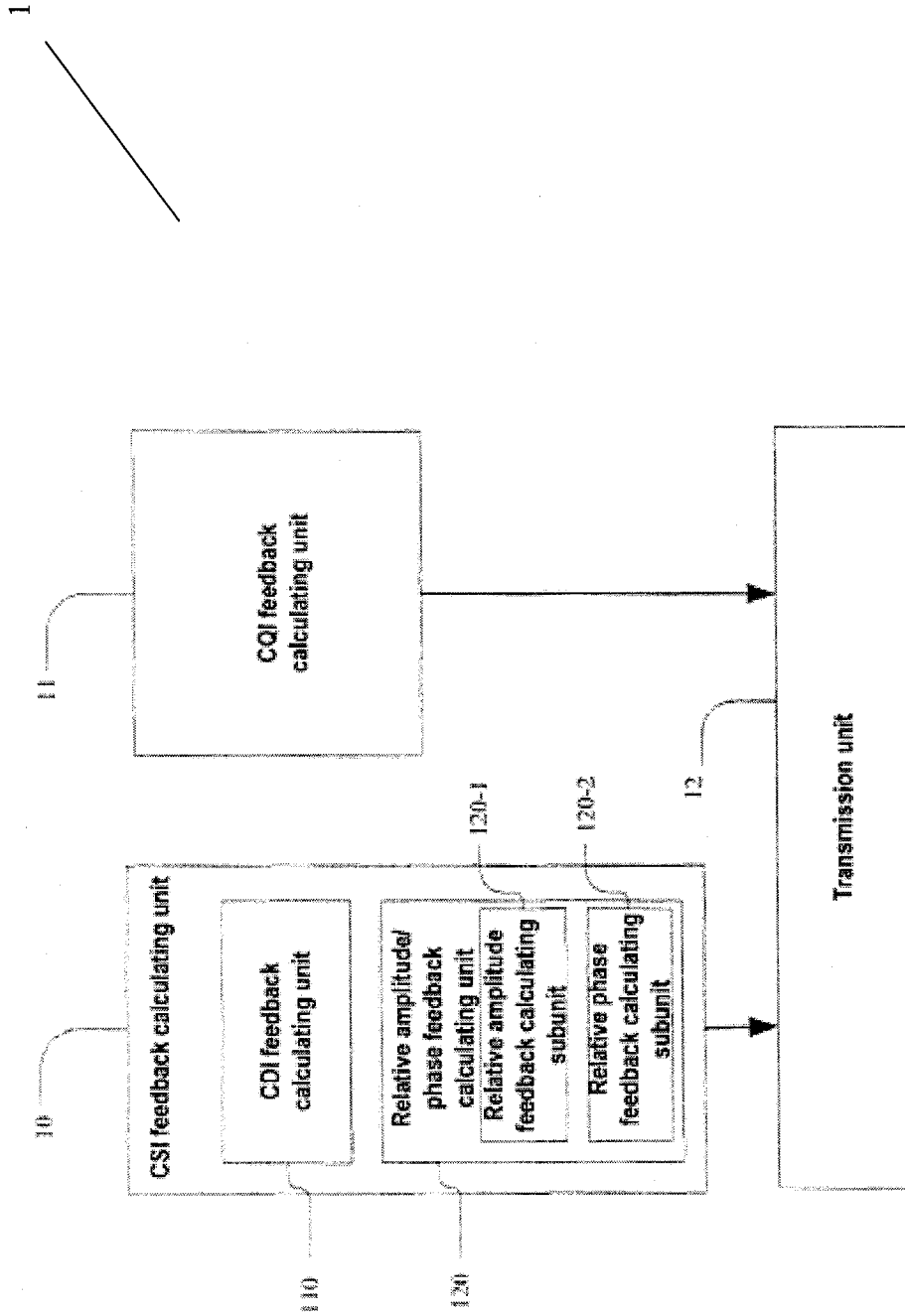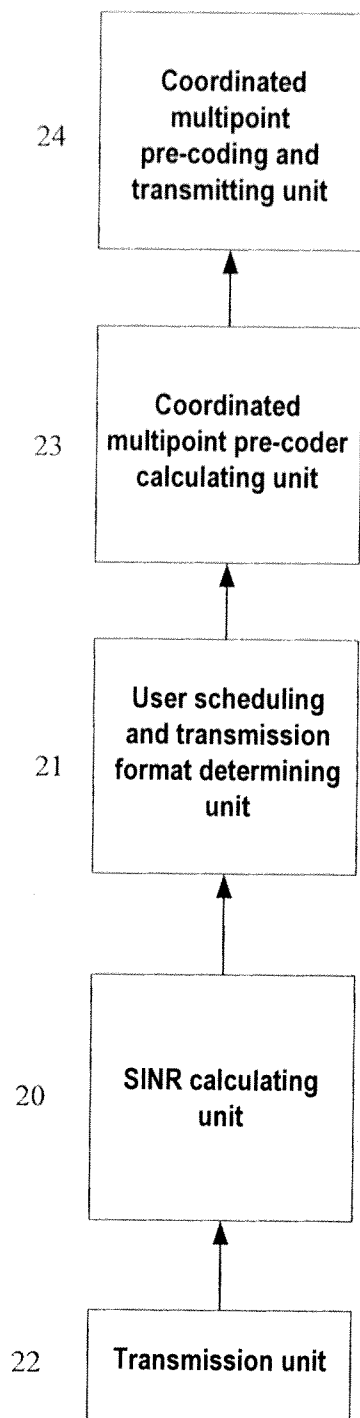
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Fig. 1

24 — Coordinated multipoint pre-coding and transmitting unit

23 — Coordinated multipoint pre-coder calculating unit

21 — User scheduling and transmission format determining unit

20 — SINR calculating unit

22 — Transmission unit

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Fig. 2

S30 — Start

S32 — Calculating per-cell CDI feedback

S34 — Calculating inter-cell relative amplitude feedbacks and relative phase feedbacks

S36 — Calculating CQI feedback corresponding to a serving cell

S38 — Feeding back the calculated channel information to the serving cell

S40 — End

Fig. 3

DOCKET ALARM
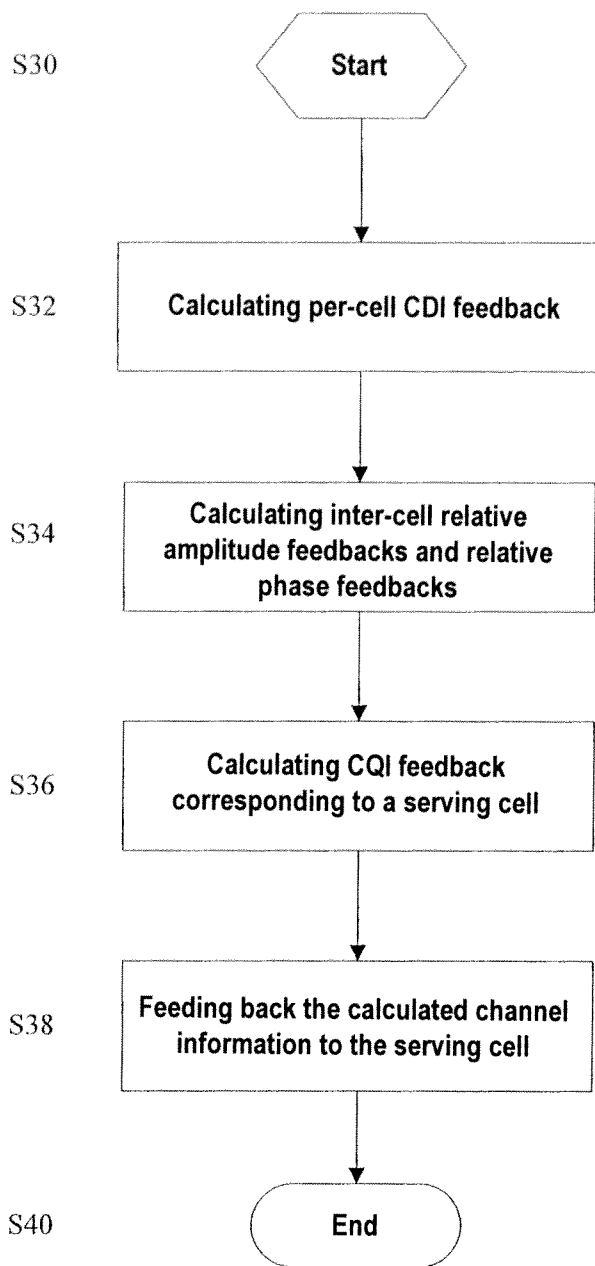
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