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(71) Applicant (for all designated States except US): **QUALCOMM Incorporated** [US/US]; 5775 Morehouse Drive, San Diego, California 92121 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **XIONG, Wei** [US/US]; 3415 Lebon Drive, # 131, San Diego, California 92122 (US).

(74) Agents: **OGROD, Gregory D.** et al.; 5775 Morehouse Drive, San Diego, California 92121 (US).

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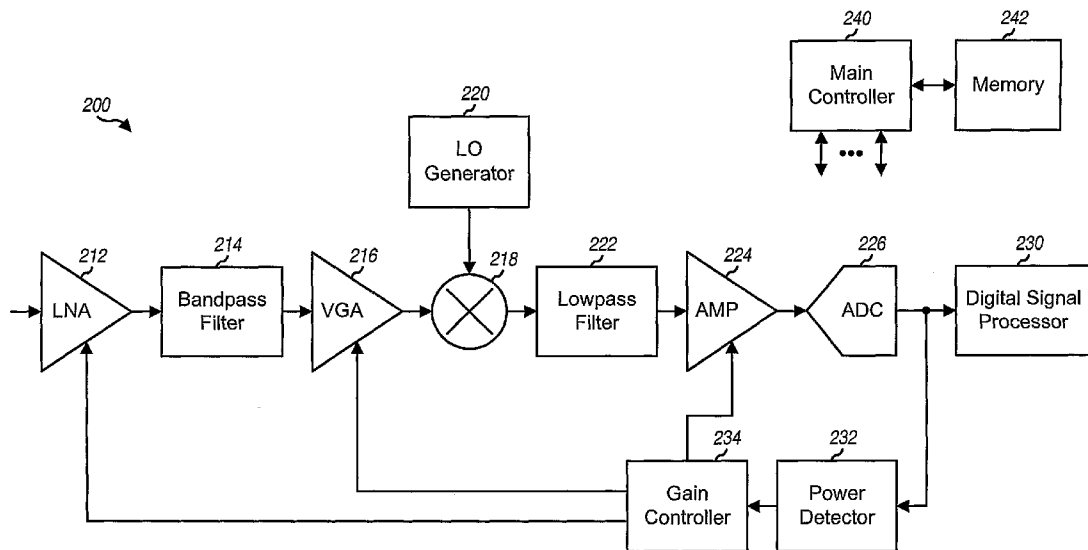
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(54) Title: GAIN CONTROL FOR A RECEIVER IN A MULTI-CARRIER COMMUNICATION SYSTEM



(57) Abstract: A receiver in an OFDM communication system includes a power detector and a gain controller. The power detector detects for total received power of a received OFDM signal, e.g., by computing the power of the data samples from an ADC and averaging the power. The gain controller adjusts the gain of the receiver in discrete gain steps and in one direction, e.g., from the lowest gain state to the highest gain state, based on the detected total received power. The gain controller initializes the receiver to the lowest gain state. Thereafter, the gain controller detects for low total received power, e.g., by comparing the detected total received power against a predetermined threshold. The gain controller transitions to a higher gain state if low total received power is detected and maintains the current gain state otherwise.

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