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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) Inventors; and

(75) Inventors/Applicants (for US only): **SUTIVONG, Arak** [TH/US]; 8840 Costa Verde Boulevard, #3439, San Diego, California 92122 (US). **AVNEESH, Agrawal** [IN/US];

7891 Doug Hill, San Diego, California 92127 (US). **JULIAN, David, Jonathan** [US/US]; 8540 Costa Verde Boulevard, #4347, San Diego, California 92122 (US).

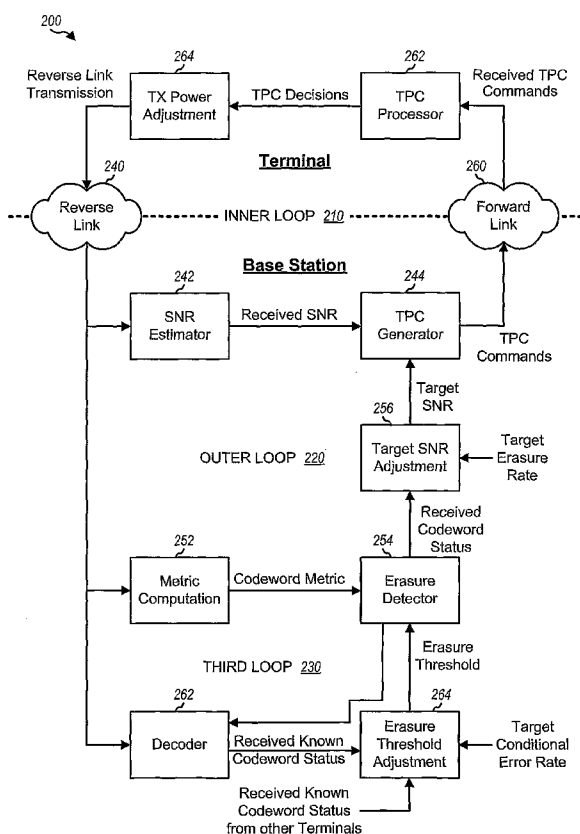
(74) Agents: **BOYD, Brent, A.** et al.; 5775 Morehouse Drive, San Diego, California 92121 (US).

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(54) Title: **ROBUST ERASURE DETECTION AND ERASURE-RATE-BASED CLOSED LOOP POWER CONTROL**



(57) Abstract: Techniques for performing erasure detection and power control for a transmission without error detection coding are described. For erasure detection, a transmitter transmits codewords via a wireless channel. A receiver computes a metric for each received codeword, compares the computed metric against an erasure threshold, and declares the received codeword to be "erased" or "non-erased". The receiver dynamically adjusts the erasure threshold based on received known codewords to achieve a target level of performance. For power control, an inner loop adjusts the transmit power to maintain a received signal quality (SNR) at a target SNR. An outer loop adjusts the target SNR based on the status of received codewords (erased or non-erased) to achieve a target erasure rate. A third loop adjusts the erasure threshold based on the status of received known codewords ("good", "bad", or erased) to achieve a target conditional error rate.



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