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

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KHAN, Safi, Ullah** [PK/US]; 11364 Swan Canyon Road, San Diego, CA 92131 (US).

(74) Agents: **WADSWORTH, Philip, R.** et al.; 5775 Morehouse Drive, San Diego, CA 92121 (US).

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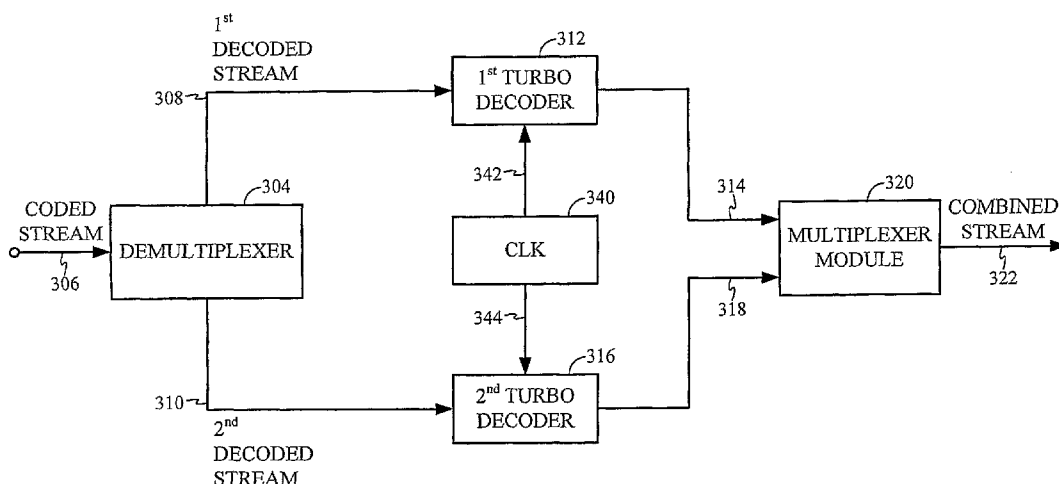
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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(54) Title: PARALLEL TURBO DECODERS WITH MULTIPLEXED OUTPUT



(57) Abstract: A system and method are provided for parallel path turbo decoding in a portable wireless communications user terminal (UT). The method accepts a coded stream (306) having a first order of information packets, and demultiplexes (304) the coded stream into first coded and second coded information streams (308, 310). The first coded stream is turbo decoded (312) generating a first decoded information stream (314). Likewise, the second coded stream is decoded (316) to generate a second decoded information stream (318), asynchronously with respect to the first decoded stream. Then, the first and second decoded streams are combined (320) into a combined stream (322) having the first order of decoded information packets. The first and second decoded streams are combined by parallel buffering the first and second decoded streams, generating parallel-buffered decoded streams. Then, the parallel-buffered decoded streams are multiplexed to create a combined stream which is stored in an output buffer.

WO 2006/099528 A1