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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) Inventors; and

(75) Inventors/Applicants (for US only): **GORE, Dhananjay Ashok** [IN/US]; 8465 Regents Road, #436, San Diego, CA 92122 (US). **Ji, Tingfang** [CN/US]; 15876 Windrose Way, San Diego, CA 92127 (US). **KADOUS, Tamer** [EG/US]; 11116 Ivy Hill Drive, San Diego, CA 92131 (US).

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

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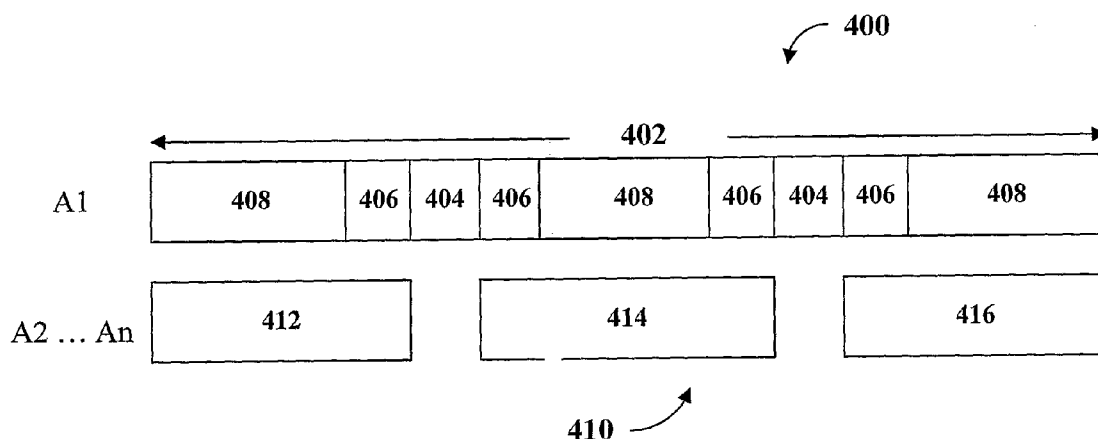
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(54) Title: METHOD AND APPARATUS FOR PILOT COMMUNICATION IN A MULTI-ANTENNA WIRELESS COMMUNICATION SYSTEM



(57) Abstract: Systems and methodologies are described that facilitate improved pilot information to MIMO user devices without increasing interference of SISO user devices in a wireless communication environment. A data communication signal can be generated and transmitted at a first power level, and a continuous pilot waveform comprising pilot information related to the data signal can be generated and sent at a second power level below the first transmission power level. Alternatively, a discontinuous pilot waveform can be generated so that it does not overlap with pilot segments in the first waveform, and can be transmitted at the first power level without interfering with the first waveform as received by a SISO user device. A MIMO user device can receive both waveforms, and can employ the pilot waveform to better estimate a MIMO channel for the first waveform.

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