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(21) International Application Number: PCT/US98/12579 (22) International Filing Date: 15 June 1998 (15.06.98) (30) Priority Data: 08/934,789 22 September 1997 (22.09.97) US (71) Applicant: INTEL CORPORATION [US/US]; 2200 Mission College Boulevard, Santa Clara, CA 95052 (US). (72) Inventors: SMITH, James, P.; 3681 South Vista Place, Chandler, AZ 85248 (US). DOYLE, James, T.; 1771 West Lantana Drive, Chandler, AZ 85248 (US). (74) Agents: TAYLOR, Edwin, H. et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).		(81) Designated States: AL, AM, AT, AT (Utility model), AU (Petty patent), AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KB, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.	

(54) Title: A HIGH DATA RATE COMMUNICATIONS NETWORK EMPLOYING AN ADAPTIVE SECTORED ANTENNA

(57) Abstract

A high data rate communication system (12) that employs an adaptive sectored antenna (46) is disclosed. The high data rate communication system (12) includes an antenna subsystem (28) for receiving and transmitting data. The antenna subsystem (28) is adapted to be spatially steered. A radio frequency transceiver (32) that is coupled to the antenna subsystem (28) and that selectively generates a bit error rate (BER) signal (206) and a receive signal strength indication (RSSI) signal (210) based upon a received antenna training sequence is also provided. The system (12) also includes a beam steering state machine (200) that is coupled to the radio frequency transceiver (32) and that selectively generates a BER_PASS signal (207) and an RSSI_PASS signal (209) based upon whether the BER signal (206) is in a first logical relationship with a predetermined BER signal and the RSSI signal (210) is in a second logical relationship with a predetermined RSSI signal. An antenna controller (38) is coupled to the antenna subsystem (28) and the beam steering state machine (200) and selectively generates antenna control signals (220) to spatially steer the antenna subsystem (28) based upon the BER_PASS signal (207) and the RSSI_PASS signal (209).

