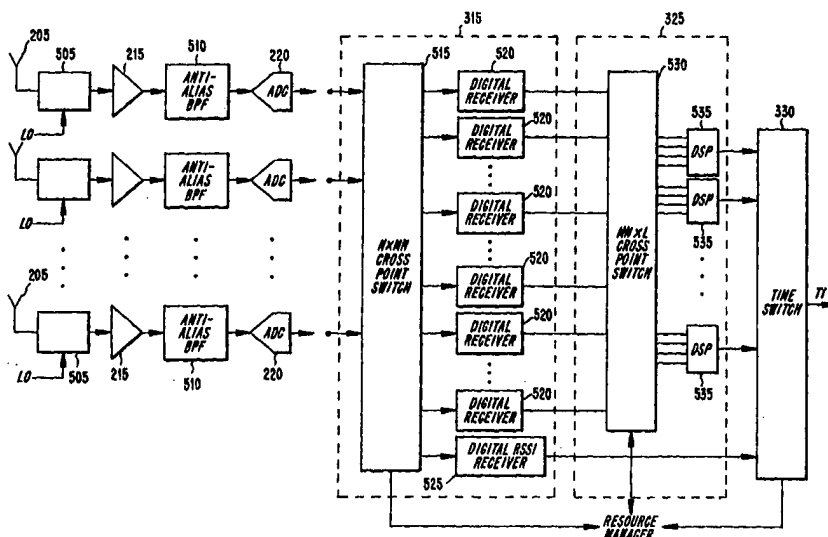




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(21) International Application Number: PCT/US97/18987 (22) International Filing Date: 28 October 1997 (28.10.97) (30) Priority Data: 08/753,437 25 November 1996 (25.11.96) US (71) Applicant: ERICSSON INC. [US/US]; 7001 Development Drive, Research Triangle Park, NC 27709 (US). (72) Inventor: BEXTEN, Ronald, L.; 1939 High House #105, Cary, NC 27513 (US). (74) Agents: GRUDZIECKI, Ronald, L. et al.; Burns, Doane, Swecker & Mathis, L.L.P., P.O. Box 1404, Alexandria, VA 22313-1404 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, 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, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, 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 <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 27 August 1998 (27.08.98)

(54) Title: A FLEXIBLE WIDEBAND ARCHITECTURE FOR USE IN RADIO COMMUNICATIONS SYSTEMS**(57) Abstract**

A wideband digital architecture for use in radio communications systems. In an exemplary embodiment, a central hub station is coupled by high speed digital data transports to multiple distributed radio transceivers. The radio transceivers are designed to perform relatively little signal processing, while the central hub is designed to perform computationally intensive signal processing tasks. By exchanging wideband data between the radio transceivers and the hub, by centralizing key system resources at the hub, and by adaptively allocating the system resources in accordance with actual system usage, the radio architecture of the present invention maximizes overall system capacity, flexibility, and resource usage efficiency while minimizing overall system cost.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 97/18987

A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04Q H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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