RTMP's Copy

* no covering letter

9704239-4.

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04Q 7/24, 7/30 — A1

(11) International Publication Number: WO 96/29834

(43) International Publication Date: 26 September 1996 (26.09.96)

(21) International Application Number: PCT/SE96/00350

(22) International Filing Date: 20 March 1996 (20.03.96)

(30) Priority Data:
08/408,863 — 23 March 1995 (23.03.95) — US

(71) Applicant: TELEFONAKTIEBOLAGET LM ERICSSON (publ) [SE/SE]; S-126 25 Stockholm (SE).

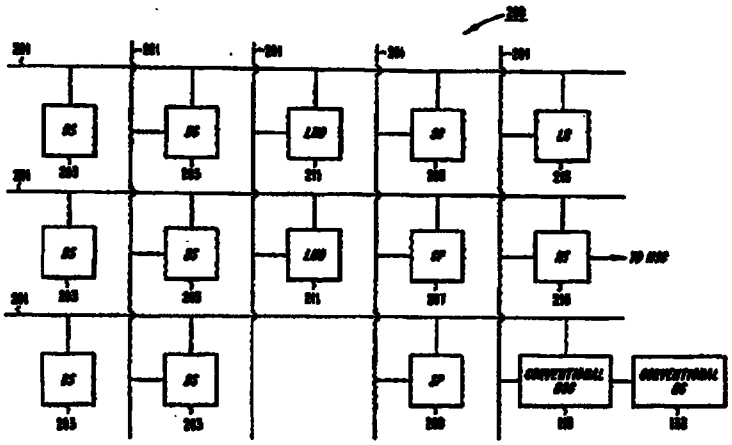
(72) Inventors: DANNE, Anders, Olof; Kastrupgatan 12, S-164 41 Kista (SE). DAHLIN, Jan, Erik, Åke; Såningsvägen 152, S-175 45 Järfälla (SE).

(74) Agents: BOHLIN, Björn et al.; Telefonaktiebolaget LM Ericsson, Patent and Trademark Dept., S-126 25 Stockholm (SE).

(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), 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
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: DISTRIBUTED RADIO TELECOMMUNICATIONS SYSTEM



(57) Abstract

A cellular telecommunications system has a plurality of nodes, each for performing at least one of a number of cellular telecommunications system functions, including base station, speech coder, control processing, signal processing, local handoff, location register, and network interface functions. The nodes are interconnected by a network preferably comprising an optical fiber cable. In one aspect of the invention, the protocol that is used on the network is a high speed synchronous protocol, such as the DTM protocol. A first node in the system may be an antenna; an RF component coupled to the antenna; an analog-to-digital converter having an analog port and a digital port, the analog port being coupled to the RF component; and an optical fiber modem for connecting the digital port of the analog-to-digital converter to the network means. A second node in the system may be for performing base station controller functions, wherein the first and second nodes, together, operate as a distributed base station. In another aspect of the invention, some of the nodes may be transceivers, while other nodes include antennas coupled to frequency band filters. The network operates to permit any of the transceivers to be coupled to any one or more of the antennas, thereby permitting a handoff of a call from one antenna to another while maintaining use of the same transceiver, or permitting a handoff of a call from one transceiver to another while maintaining use of the same antenna.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
AT	Austria	GE	Georgia	MX	Mexico
AU	Australia	GN	Guinea	NE	Niger
BB	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	IE	Ireland	NZ	New Zealand
BG	Bulgaria	IT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Kenya	RO	Romania
BY	Belarus	KG	Kyrgystan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic of Korea	SD	Sudan
CF	Central African Republic			SE	Sweden
CG	Congo	KR	Republic of Korea	SG	Singapore
CH	Switzerland	KZ	Kazakhstan	SI	Slovenia
CI	Côte d'Ivoire	LI	Liechtenstein	SK	Slovakia
CM	Cameroon	LK	Sri Lanka	SN	Senegal
CN	China	LR	Liberia	SZ	Swaziland
CS	Czechoslovakia	LT	Lithuania	TD	Chad
CZ	Czech Republic	LU	Luxembourg	TG	Togo
DE	Germany	LV	Latvia	TJ	Tajikistan
DK	Denmark	MC	Monaco	TT	Trinidad and Tobago
EE	Estonia	MD	Republic of Moldova	UA	Ukraine
ES	Spain	MG	Madagascar	UG	Uganda
FI	Finland	ML	Mali	US	United States of America
FR	France	MN	Mongolia	UZ	Uzbekistan
GA	Gabon	MR	Mauritania	VN	Viet Nam