



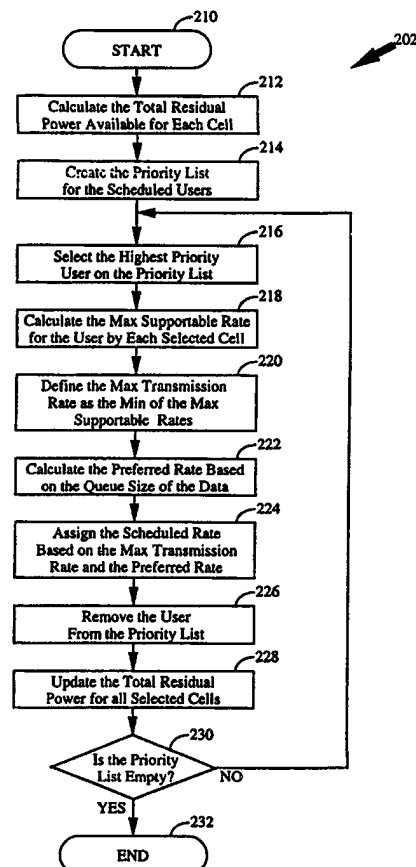
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 7/22, 7/38, H04B 7/26		A3	(11) International Publication Number: WO 98/35514
			(43) International Publication Date: 13 August 1998 (13.08.98)
(21) International Application Number: PCT/US98/02626		(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, GM, GW, 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, GM, 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).	
(22) International Filing Date: 10 February 1998 (10.02.98)			
(30) Priority Data: 798,951 11 February 1997 (11.02.97) US			
(71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US).			
(72) Inventors: TIEDEMANN, Edward, G., Jr.; 4350 Bromfield Avenue, San Diego, CA 92121 (US). LIN, Yu-Chuan; 585 W. 63rd Avenue, Vancouver, British Columbia V6P 2G7 (CA). JOU, Yu-Cheun; 9979 Riverhead Drive, San Diego, CA 92129 (US). ODENWALDER, Joseph, P.; 14967 Rancho Real, Del Mar, CA 92014 (US).			
(74) Agents: OGROD, Gregory, D. et al.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (US).			
		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: 3 December 1998 (03.12.98)	

(54) Title: METHOD AND APPARATUS FOR FORWARD LINK RATE SCHEDULING

(57) Abstract

In a communication system capable of variable rate transmission, scheduling of high speed data transmission improves utilization of the forward link and decreases the transmission delay in data communication. Each remote station (6) is assigned one primary code channel for the duration of the communication with a cell. Secondary code channels of various types and transmission capabilities can be assigned by a channel scheduler (12) for scheduled transmission of data traffic at high rates. Secondary code channels are assigned in accordance with a set of system goals, a list of parameters, and collected information on the status of the communication network. Secondary code channels can be grouped into sets of secondary code channels. Data is partitioned in data frames and transmitted over the primary and secondary code channels which have been assigned to the scheduled user.



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.

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

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 98/02626

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 H04Q7/22 H04Q7/38 H04B7/26

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96 37081 A (ROKE MANOR RESEARCH ;DAVIS SIMON PAUL (GB)) 21 November 1996 see page 2, line 16 - page 8, line 3 ---	1-4, 9, 14-18, 22-25
X	WO 95 07578 A (QUALCOMM INC) 16 March 1995 see page 7, line 33 - page 9, line 30 see page 10, line 28 - page 14, line 2; claims ---	1-4, 9, 14-18, 22-25
X	WO 96 10305 A (NOKIA TELECOMMUNICATIONS OY ;JOKINEN HARRI (FI); POSTI HARRI (FI);) 4 April 1996 see page 3, line 16 - page 5, line 10; claims ---	1-4, 9, 14-18, 22-25
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

15 October 1998

Date of mailing of the international search report

22/10/1998

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Janyaszek, J-M

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/02626

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 719 062 A (AT & T CORP) 26 June 1996 see the whole document ---	1-3, 14, 15, 22
A	WO 95 24102 A (NOKIA TELECOMMUNICATIONS OY ; JOLMA PETRI (FI); SAVUSALO JARI (FI);) 8 September 1995 see claims ---	1, 14, 15, 18, 22, 25
P, X	EP 0 782 364 A (LSI LOGIC CORP) 2 July 1997 see the whole document -----	1-5, 9, 14-18, 22-25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/02626

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9637081 A	21-11-1996	CN 1157083 A EP 0771510 A JP 10503357 T	13-08-1997 07-05-1997 24-03-1998
WO 9507578 A	16-03-1995	AU 679261 B AU 7683894 A BR 9407458 A CA 2171008 A CN 1130964 A EP 0717891 A FI 961113 A JP 9504914 T ZA 9406674 A	26-06-1997 27-03-1995 12-11-1996 16-03-1995 11-09-1996 26-06-1996 26-04-1996 13-05-1997 02-05-1995
WO 9610305 A	04-04-1996	FI 96558 B AU 696802 B AU 3524095 A CA 2200307 A EP 0783811 A FI 971270 A JP 10509566 T	29-03-1996 17-09-1998 19-04-1996 04-04-1996 16-07-1997 26-03-1997 14-09-1998
EP 0719062 A	26-06-1996	US 5592470 A JP 8280058 A	07-01-1997 22-10-1996
WO 9524102 A	08-09-1995	FI 940929 A AU 686744 B AU 1709395 A CN 1141712 A EP 0746951 A JP 9509801 T NO 963537 A	26-08-1995 12-02-1998 18-09-1995 29-01-1997 11-12-1996 30-09-1997 23-08-1996
EP 0782364 A	02-07-1997	JP 9219890 A	19-08-1997