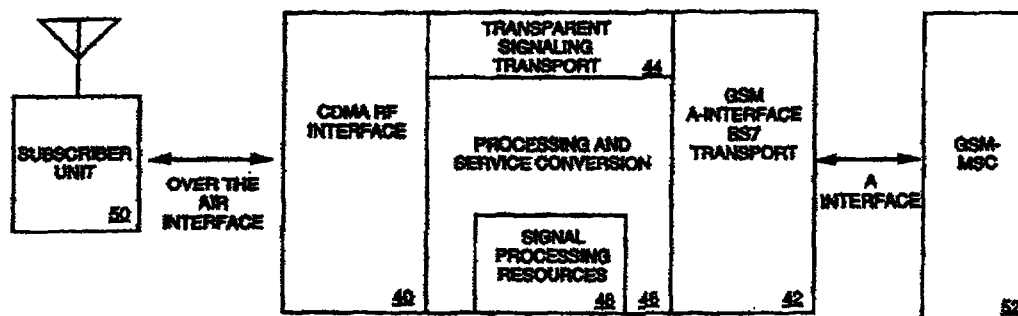


PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04Q 7/30, 7/22, H04B 7/26	A3	(11) International Publication Number: WO 97/23108 (43) International Publication Date: 26 June 1997 (26.06.97)
(21) International Application Number: PCT/US96/20764 (22) International Filing Date: 18 December 1996 (18.12.96) (30) Priority Data: 575,413 ⁷ 05/55-11, 20 December 1995 (20.12.95) US (71) Applicant: QUALCOMM INCORPORATED [US/US]; 6455 Lusk Boulevard, San Diego, CA 92121 (US). (72) Inventors: SPARTZ, Michael K.; 540 Calle Capistrano, San Marcos, CA 92069 (US). AGRE, Daniel H.; 9714 Caminito Mojado, San Diego, CA 92131 (US). ROBBINS, Barry, R.; 4085 Porte La Paz #179, San Diego, CA 92122 (US). (74) Agents: MILLER, Russell, B. et al.; Qualcomm Incorporated, 6455 Lusk Boulevard, San Diego, CA 92121 (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, HU, 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, <u>SG</u> , 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 <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: 24 December 1997 (24.12.97)	

(54) Title: **WIRELESS TELECOMMUNICATIONS SYSTEM UTILIZING CDMA RADIO FREQUENCY SIGNAL MODULATION IN CONJUNCTION WITH THE GSM A-INTERFACE TELECOMMUNICATIONS NETWORK PROTOCOL**



(57) Abstract

A method and apparatus for operating a wireless telecommunication system utilizing code division multiple access (CDMA) over-the-air with a Global System for Mobile (GSM) communications A-interface based network is described. A CDMA radio frequency (RF) signal interface provides a bi-directional interface to a subscriber unit (50), and a Global System for Mobile (GSM) communications A-interface SS7 transport provides a bi-directional interface with GSM mobile services switching center (MSC) (52). Additionally, a transparent message transport (44) is provided over which signaling messages defined in the GSM A-interface protocol are exchanged between the GSM MSC (52) and a subscriber unit (50).

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	Kyrgyzstan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic of Korea	SD	Sudan
CF	Central African Republic	KR	Republic of Korea	SE	Sweden
CG	Congo	KZ	Kazakhstan	SG	Singapore
CH	Switzerland	LI	Liechtenstein	SI	Slovenia
CI	Côte d'Ivoire	LK	Sri Lanka	SK	Slovakia
CM	Cameroon	LR	Liberia	SN	Senegal
CN	China	LT	Lithuania	SZ	Swaziland
CS	Czechoslovakia	LU	Luxembourg	TD	Chad
CZ	Czech Republic	LV	Latvia	TG	Togo
DE	Germany	MC	Monaco	TJ	Tajikistan
DK	Denmark	MD	Republic of Moldova	TT	Trinidad and Tobago
EE	Estonia	MG	Madagascar	UA	Ukraine
ES	Spain	ML	Mali	UG	Uganda
FI	Finland	MN	Mongolia	US	United States of America
FR	France	MR	Mauritania	UZ	Uzbekistan
GA	Gabon			VN	Viet Nam