PO1610-1
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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : H04B 7/212 — A2

(11) International Publication Number: WO 97/38502

(43) International Publication Date: 16 October 1997 (16.10.97)

(21) International Application Number: PCT/US97/05604

(22) International Filing Date: 3 April 1997 (03.04.97)

(30) Priority Data:
08/629,358 — 8 April 1996 (08.04.96) — US

(60) Parent Application or Grant
(63) Related by Continuation
US — 08/629,358 (CON)
Filed on — 8 April 1996 (08.04.96)

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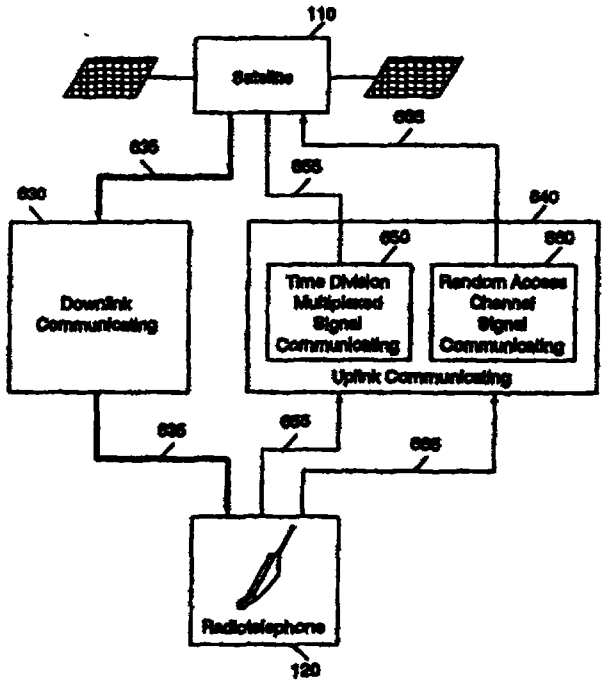
(81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, 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
Without international search report and to be republished upon receipt of that report.

(54) Title: SYSTEMS AND METHODS FOR RANDOM ACCESS IN TIME DIVISION MULTIPLE ACCESS SATELLITE RADIOTELEPHONE COMMUNICATIONS

(57) Abstract

In a time division mutiple access (TDMA) satellite radiotelephone communications system, a radiotelephone communicates random access channel radiotelephone communications signals to a satellite over a dedicated random access channel uplink carrier frequency band. In response, a time division mutiple access channel on a time division multiplexed uplink carrier frequency band different from the dedicated random access channel uplink carrier frequency band is assigned. The radiotelephone communicates time division multiplexed radiotelephone communications signals to the satellite over the allocated time division multiple access channel. Random access channel radiotelephone communications signals may be communicated to the satellite from a first radiotelephone over a first dedicated random access channel uplink carrier frequency band or from a second radiotelephone over a second dedicated random access channel uplink carrier frequency band different from said first dedicated random access channel uplink carrier frequency band. For a system in which the satellite communicates radiotelephone communications signals to radiotelephones located in a first coverage area and communicates radiotelephone communications signals to radiotelephones located in a second coverage area, random access channel radiotelephone communications signals may be communicated over a first dedicated random access uplink carrier frequency band if the radiotelephone is located in the first coverage area or communicating random access radiotelephone communications signals over a second dedicated random access channel uplink carrier frequency band different from the first dedicated random access uplink carrier band if the radiotelephone is located in the second coverage area.