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(21) International Application Number: PCT/KR99/00081 (22) International Filing Date: 20 February 1999 (20.02.99) (30) Priority Data: 1998/5441 20 February 1998 (20.02.98) KR (71) Applicant: SAMSUNG ELECTRONICS CO., LTD. [KR/KR]; 416, Maetan-dong, Paldal-gu, Suwon-shi, Kyungki-do 442-370 (KR). (72) Inventors: ① HA, Dong, In; 1030-6, Pangbae-dong, Socho-gu, Seoul 137-060 (KR). ② SEO, Ho, Soo; 177, Jungni-dong, Ichon-shi, Kyonggi-do 467-800 (KR). ③ KIM, Seong, Joong; 298-1, Tonong-dong, Namyangju-shi, Kyonggi-do 472-100 (KR). ④ GOUDELEV, Alexandre; Samsung 1-cha Apt. #5-1112, Maetan-dong, Paltal-gu, Suwon-shi, Ky- onggi-do 442-370 (KR). ⑤ KRYLOV, Konstantin; Samsung 1-cha Apt. #6-801, Maetan-dong, Paltal-gu, Suwon-shi, Kyonggi-do 442-370 (KR). (74) Agent: LEE, Keon, Joo; Mihwa Building, 110-2, Myon- gryun-dong, 4-Ga, Chongro-gu, Seoul 110-524 (KR).		(81) Designated States: AU, BR, CA, CN, IL, JP, RU, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>

(54) Title: DUAL BAND ANTENNA FOR RADIO TERMINAL

(57) Abstract

A dual band antenna for a radio terminal consists of a retractable whip antenna (10) and a helical antenna (30) with irregular pitches, wherein the whip antenna (10) is independent of the helical antenna (30). The helical antenna (30) includes first and second helical portions (35) having first and second pitches, respectively and the first and second helical portions (35) are operable at different frequency bands independently. The whip antenna (10) includes a conductive core line (12), a conductive substance (13) covering a first portion of the conductive core line (12) to serve as a choke and an isolation element extending from an upper end of the conductive core line (12), for filling a gap between the conductive core line (12) and the conductive substance (13). Here, only the first portion of the conductive core line (12) is operable at a first frequency band and the entire conductive core line (12) is operable at a second frequency. A fixing element (40) fixes the helical antenna (30) and the whip antenna (10) to the radio terminal (60). The fixing element (40) has an upper end connected to a lower end of the helical antenna (30) and a through hold via which the whip antenna (10) is inserted into an interior of the radio terminal (60).

