

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/25772 A1

(51) International Patent Classification⁷: **H01Q 5/00**

(21) International Application Number: PCT/KR00/01064

(22) International Filing Date:
25 September 2000 (25.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant and

(72) Inventor: **CHANG, Eung-Soon** [KR/KR]; 103-904
Samik Ceramic Apt., 1038, Mansoo-dong, Namdong-gu,
Inchon-shi 405-240 (KR).

(74) Agent: **YOO, Dong-Ho**; Kangnam Building, Room 903,
1321-1, Soch'o-dong, Soch'o-gu, Seoul 137-070 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,

DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

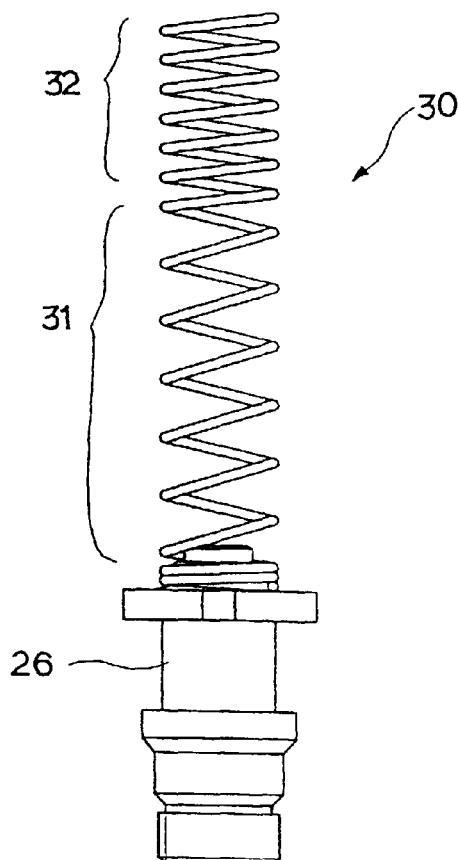
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DUAL BAND ANTENNA



(57) Abstract: The present invention discloses a dual band antenna for a portable wireless device which can be suitably used for a cellular phone and a personal communication services (PCS) phone, by improving a spring structure of a helical antenna to have a dual bandwidth of 900 MHz of the cellular phone and 1900 MHz of the PCs phone. The dual band antenna for the wireless device wherein the helical antenna has a built-in spring, includes: a spring consisting of a lower spring fixed to a metal rod of the helical antenna at predetermined spring intervals, for transmitting and receiving a frequency of 1900 MHz; and an upper spring having narrower spring intervals than the lower spring, the upper and lower springs being able to transmit and receive a frequency of 900 MHz.



WO 02/25772 A1