



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶: H01Q 5/01, 9/30, H04B 1/18	A1	(11) International Publication Number: WO 99/04452 (43) International Publication Date: 28 January 1999 (28.01.99)
(21) International Application Number: PCT/KR97/00270 (22) International Filing Date: 19 December 1997 (19.12.97) (30) Priority Data: 1997/33877 19 July 1997 (19.07.97) KR (71) Applicant: SAMSUNG ELECTRONICS CO., LTD. [KR/KR]; 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do 441-370 (KR). (72) Inventors: HA, Dong, In; 1030-6, Bangbae-dong, Seocho-gu, Seoul 137-060 (KR). SEO, Ho, Soo; 177, Jungri-dong, Icheon-city, Kyungki-do 467-800 (KR). GOUDELEV, Alexandre; Samsung 1-cha APT. #5-1112, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do 442-370 (KR). KRYLOV, Konstantin; Samsung 1-cha APT. #6-801, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do 442-370 (KR). (74) Agent: LEE, Keon, Joo; Mihwa Building, 110-2, Myongryun-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, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: DUAL BAND ANTENNA**(57) Abstract**

A dual band antenna with a simple and compact structure includes an inductor, first and second rod-like radiating elements connected to opposite ends of the inductor, with dielectric material surrounding both the inductor and the joining portions of the first and second radiating elements on the respective ends of the inductor. A conductive housing surrounds the dielectric and supports the inductor and the joining portions of the first and second radiating elements. The housing and dielectric create a capacitance, so that an LC resonant circuit is formed in conjunction with the inductor. The LC circuit is designed such that only one radiating element radiates at the higher band of the dual operating band, whereas both radiating elements radiate at the lower band.

