



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| <b>(51) International Patent Classification <sup>6</sup> :</b><br><b>H01Q 9/30, H04B 1/18</b>                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 98/48478</b><br><b>(43) International Publication Date:</b> 29 October 1998 (29.10.98)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>(21) International Application Number:</b> PCT/KR97/00096<br><b>(22) International Filing Date:</b> 27 May 1997 (27.05.97)<br><b>(30) Priority Data:</b><br>1997/14726      21 April 1997 (21.04.97)      KR<br><b>(71)(72) Applicant and Inventor:</b> CHANG, Bung-Soon [KR/KR];<br>103-904, Samik Ceramic Apt., 1038, Mansoo-dong, Nam-dong-gu, Incheon-shi 405-240 (KR).<br><b>(74) Agents:</b> YOO, Dong-Ho et al.; Kangnam Building, Room 903,<br>1321-1, Soch'o-dong, Soch'o-gu, Seoul 137-070 (KR). |           | <b>(81) Designated States:</b> 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, 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, 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).<br><br><b>Published</b><br><i>With international search report.</i> |

**(54) Title:** HIGH IMPEDANCE TYPE HIGH FREQUENCY ANTENNA**(57) Abstract**

A high impedance type high frequency antenna by which the antenna is not influenced by an external factor when a human body or the like approaches the antenna by enabling a high impedance by decreasing a reactance component and increasing a resistance component, whereby it is possible to fabricate a compact size product. The antenna includes an RF module having an input and output capacity of  $50\Omega$ , and a matching circuit connected between the antenna and the RF module for outputting  $50\Omega$  of an impedance and having a smith chart at a  $1/4\lambda$  helical portion so that a  $1/2\lambda$  monopole antenna is matched with a  $50\Omega$  RF module.

