

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 January 2006 (05.01.2006)

PCT

(10) International Publication Number
WO 2006/002145 A1

(51) International Patent Classification⁷: **H01Q 7/00**, 1/38

(21) International Application Number:
PCT/US2005/021892

(22) International Filing Date: 20 June 2005 (20.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/873,033 21 June 2004 (21.06.2004) US

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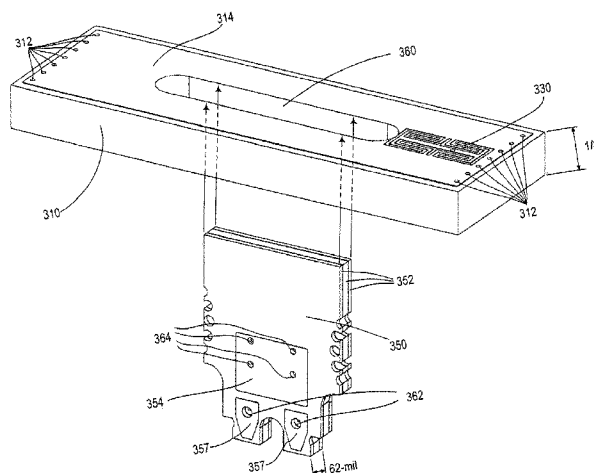
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: COMPACT RADIO FREQUENCY TRANSMITTING AND RECEIVING ANTENNA AND CONTROL DEVICE EMPLOYING SAME



(57) Abstract: A compact antenna for use in a device for controlling the power delivered to an electric load and operable to transmit or receive radio frequency signals at a specified frequency is presented. The antenna comprises a first loop of conductive material having a capacitance and an inductance forming a circuit being resonant at the specified frequency, and a second loop of conductive material having two ends adapted to be electrically coupled to an electronic circuit. The second loop is substantially only magnetically coupled to the first loop and is electrically isolated from the first loop. In a first embodiment of the antenna, the first and second loops are formed on respective first and second printed circuit boards, which allow for a small, low-cost antenna that is easy to manufacture and maximizes efficiency. When the antenna is installed in a load control device, such as a dimmer, the first loop of the antenna is mounted on an outer surface of the device. The second loop of the antenna may be at a high-voltage potential such as line voltage.

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