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Rabinovich et al.(10) **Pub. No.: US 2006/0170610 A1**(43) **Pub. Date: Aug. 3, 2006**(54) **ANTENNA SYSTEM FOR REMOTE
CONTROL AUTOMOTIVE APPLICATION**(52) **U.S. Cl. 343/895; 343/702; 343/713**(75) Inventors: **Victor Rabinovich**, Richmond Hill
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CLEVELAND, OH 44114 (US)(73) Assignee: **TENATRONICS LIMITED**(21) Appl. No.: **11/150,051**(22) Filed: **Jun. 10, 2005****Related U.S. Application Data**(60) Provisional application No. 60/647,885, filed on Jan.
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H01Q 1/24 (2006.01)(57) **ABSTRACT**

An antenna system for remote control applications comprises a communications module; an antenna assembly; and a radio frequency cable, having a first connection end and a second connection end, wherein the first connection end is coupled to the communications module and the second connection end is coupled to the antenna assembly. The antenna assembly is located a predetermined distance from the communications module, the predetermined distance substantially eliminating null regions in an antenna radiation pattern of the antenna system. An antenna diversity system for remote control applications comprises an antenna assembly; a communications module; an electronic switch assembly, wherein a first RF cable couples the electronic switch assembly to the antenna assembly and a second RF cable couples the electronic switch assembly to the communications module, wherein the antenna assembly, the first RF cable, the second RF cable, the electronic switch assembly and the communications module form a radio frequency circuit; and a diversity RF cable, coupled to the electronic switch assembly, wherein the electronic switch assembly switches the diversity RF cable into and out of the radio frequency circuit.

