



US 20090002246A1

(19) **United States**(12) **Patent Application Publication**
Rabinovich et al.(10) **Pub. No.: US 2009/0002246 A1**(43) **Pub. Date: Jan. 1, 2009**(54) **ANTENNA AND SPLITTER FOR RECEIVING
RADIO AND REMOTE KEYLESS ENTRY
SIGNALS**(76) Inventors: **Victor Rabinovich**, Richmond Hill
(CA); **Yarko Matkiwsky**, (US)Correspondence Address:
PATTON BOGGS LLP
2550 M STREET NW
WASHINGTON, DC 20037-1350 (US)(21) Appl. No.: **11/819,771**(22) Filed: **Jun. 29, 2007****Publication Classification**(51) **Int. Cl.**
H01Q 1/32 (2006.01)
H01P 11/00 (2006.01)**H01Q 21/00** (2006.01)**H03H 7/46** (2006.01)(52) **U.S. Cl. 343/713; 29/600; 333/132; 343/893**(57) **ABSTRACT**

An antenna system may include a first antenna having a helical shaped portion, and configured to receive signals over a first frequency range. A second antenna may be positioned in proximate distance from the first antenna, and be configured to receive signals over a second frequency range. A splitter may be configured for separating signals received from radio and remote keyless entry antennas and may include a first branch including a first filter to filter AM band signals from communications signals received from an antenna, a second branch including a second filter to filter FM band signals from communications signals received from the antenna, a third branch including a third filter to filter remote keyless entry signals from communications signals received from the antenna, and an amplifier to amplify the remote keyless entry signals. The filters may be passive filters. The antenna maybe a whip antenna or roof antenna.

