

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0053378 A1**

Lovin et al.

(43) **Pub. Date: Mar. 20, 2003**

(54) **WIRELESS DIGITAL AUDIO TO AM/FM DECODER AND MODULATOR**

Publication Classification

(75) Inventors: **James Milton Lovin**, Melbourne, FL (US); **William Robert Lovin**, Melbourne, FL (US)

(51) **Int. Cl.⁷** **H04H 9/00; G06F 17/00**
 (52) **U.S. Cl.** **369/7; 700/94**

Correspondence Address:
HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133 (US)

(57) **ABSTRACT**

A wireless digital audio to AM/FM decoder and modulator capable of communicating with a radio receiver includes a short-range wireless networking transceiver using a standardized digital communications protocol to receive digital data representing audible information. A controller converts the digital data into intermediate format digital data that may be stored in a memory device. A digital to analog converter converts the intermediate format digital data into an audio frequency signal, which is transmitted by a radio frequency signal, which is transmitted by a radio frequency transmitter at very low power to the radio receiver. In an alternative embodiment, the controller converts the digital data representing audible information into a digital representation of a radio frequency signal modulated with the audible information. A radio frequency amplifier transmits the radio frequency signal at very low power to the radio receiver. In one application, the AM/FM decoder and modulator may be connected directly or wirelessly to an automobile radio antenna.

(73) Assignee: **Radielle, Inc.**, Melbourne, FL

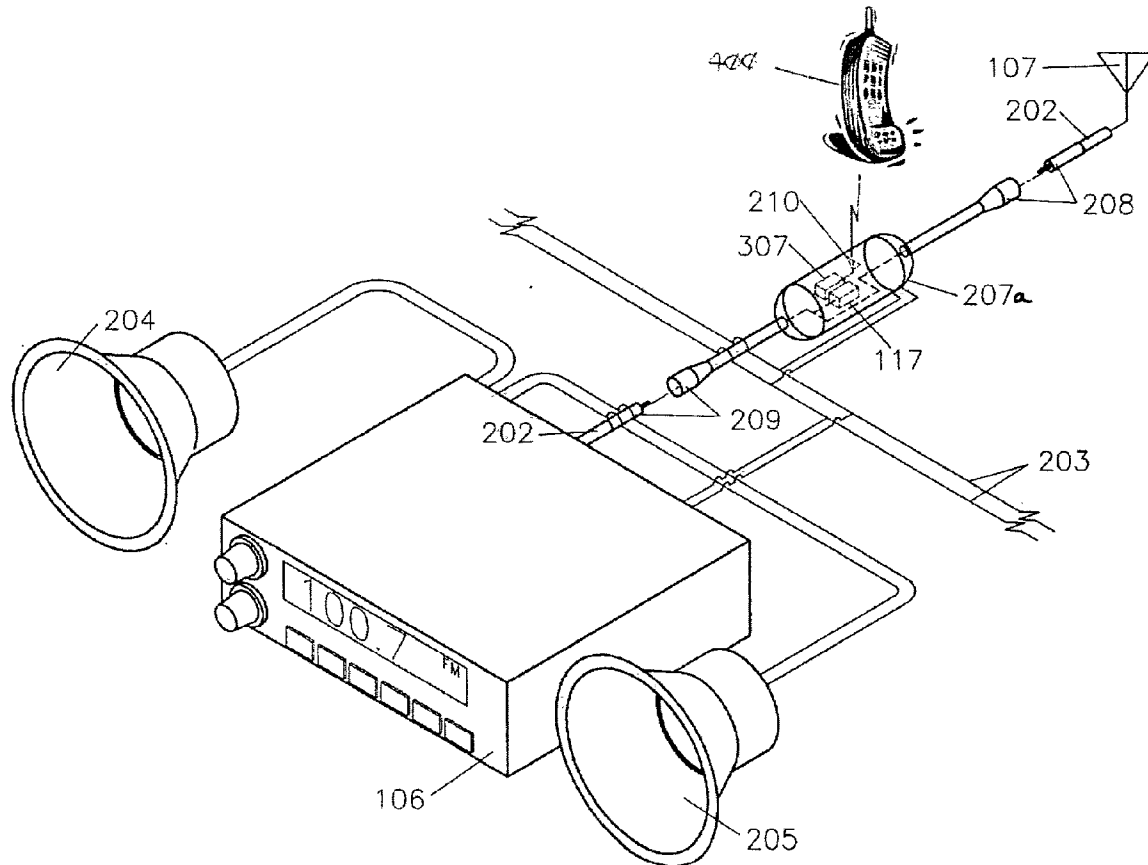
(21) Appl. No.: **10/210,856**

(22) Filed: **Jul. 31, 2002**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/193,724, filed on Jul. 10, 2002.

(60) Provisional application No. 60/309,015, filed on Jul. 31, 2001. Provisional application No. 60/304,945, filed on Jul. 11, 2001.



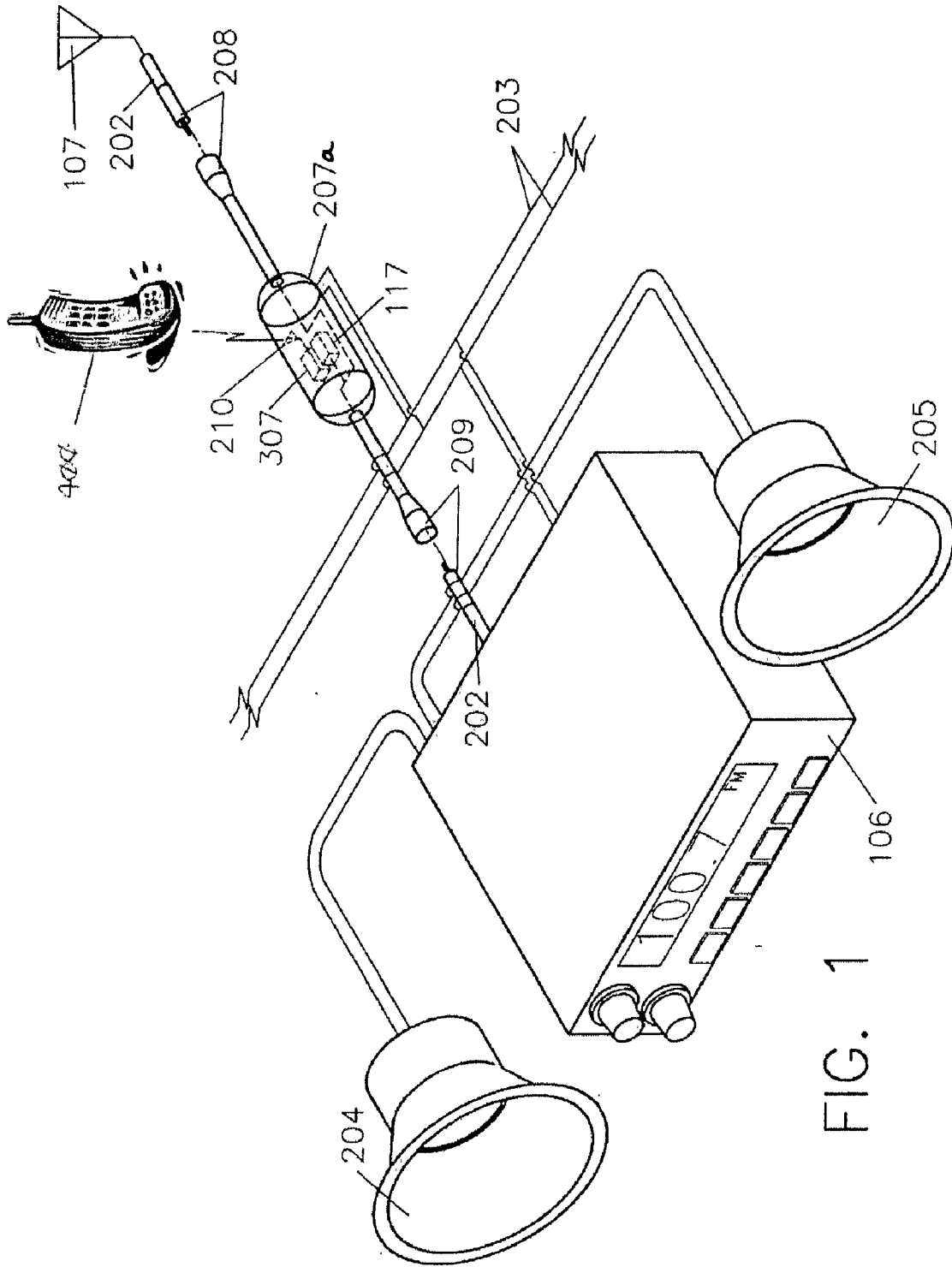


FIG. 1

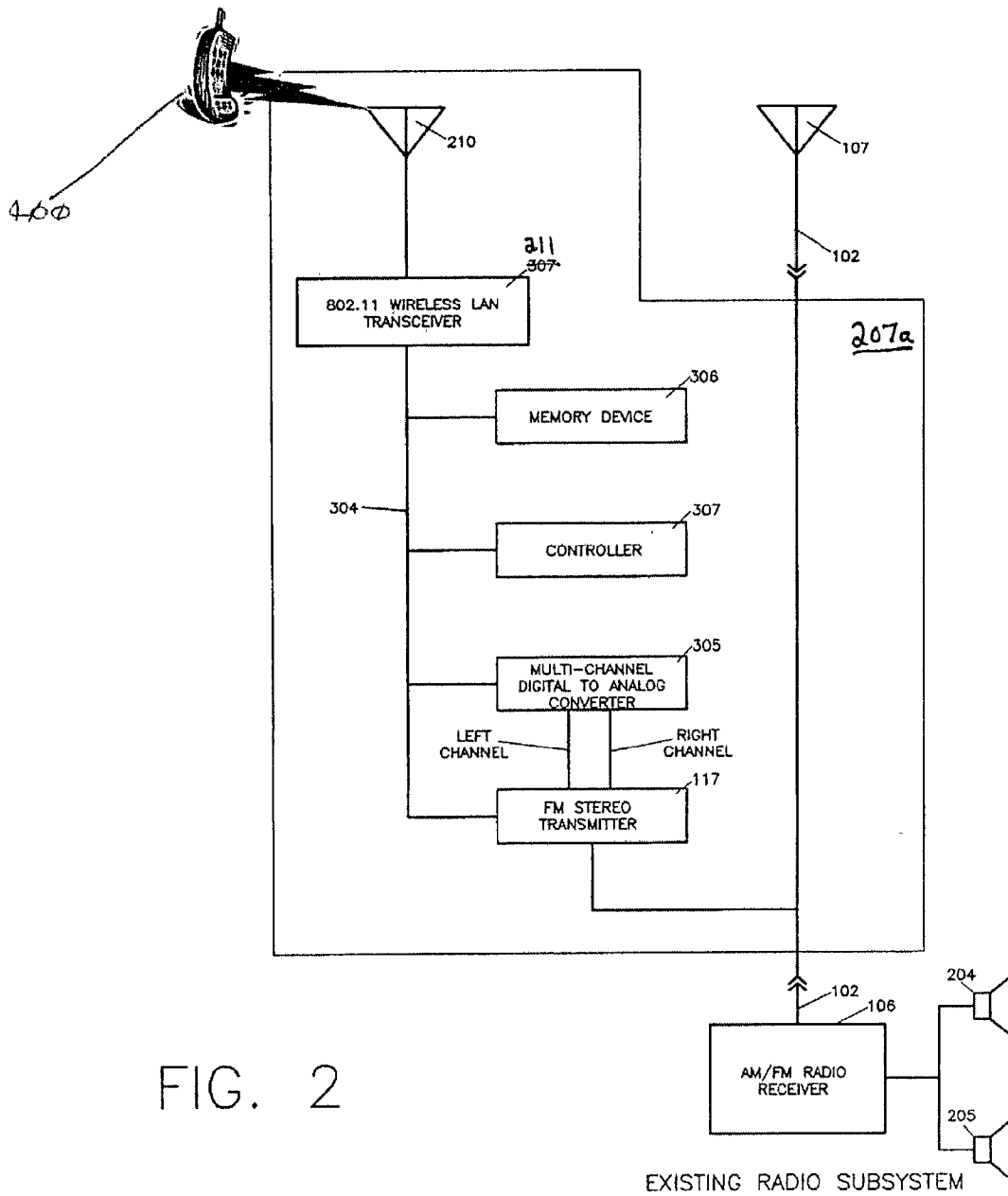


FIG. 2

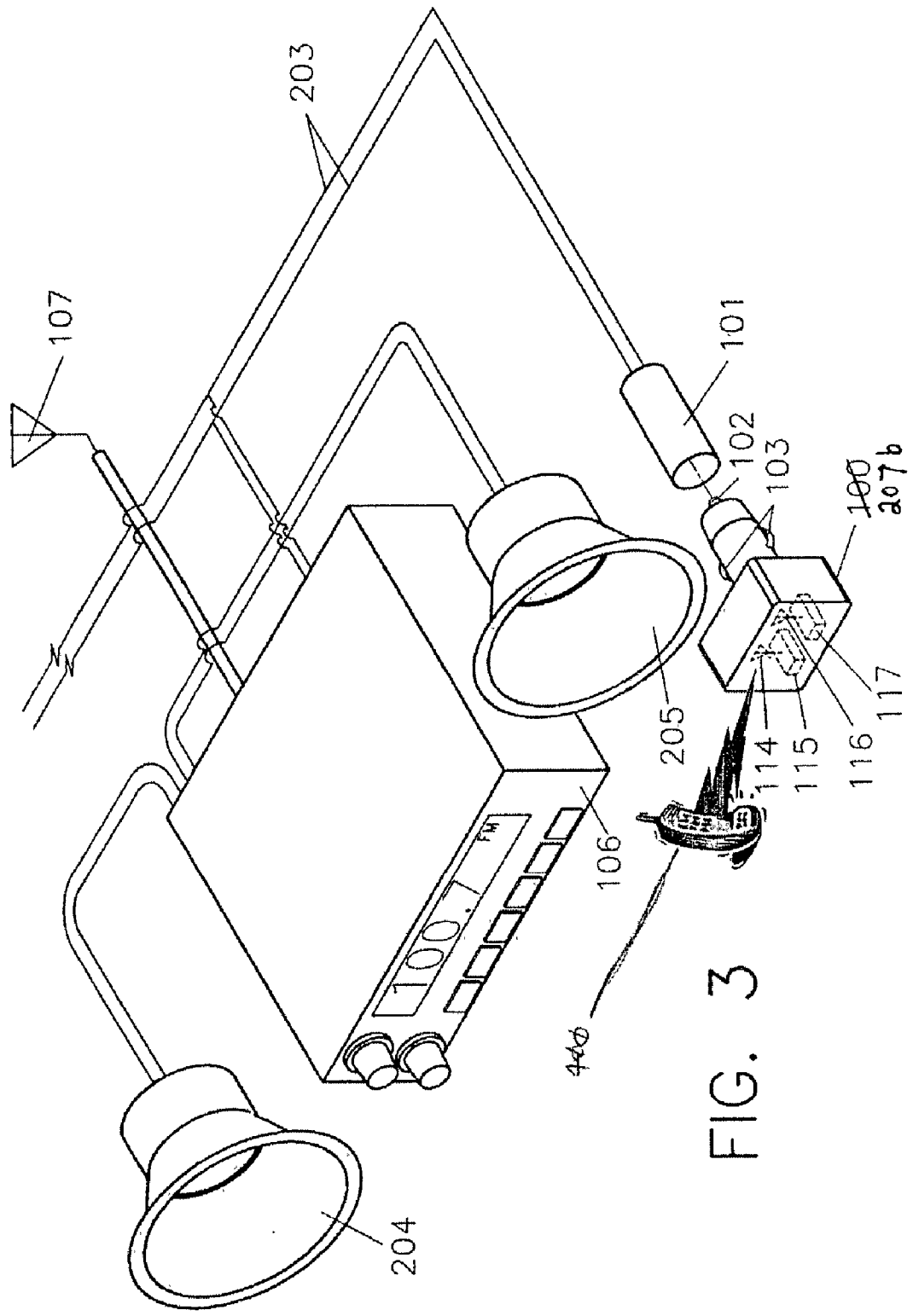


FIG. 3

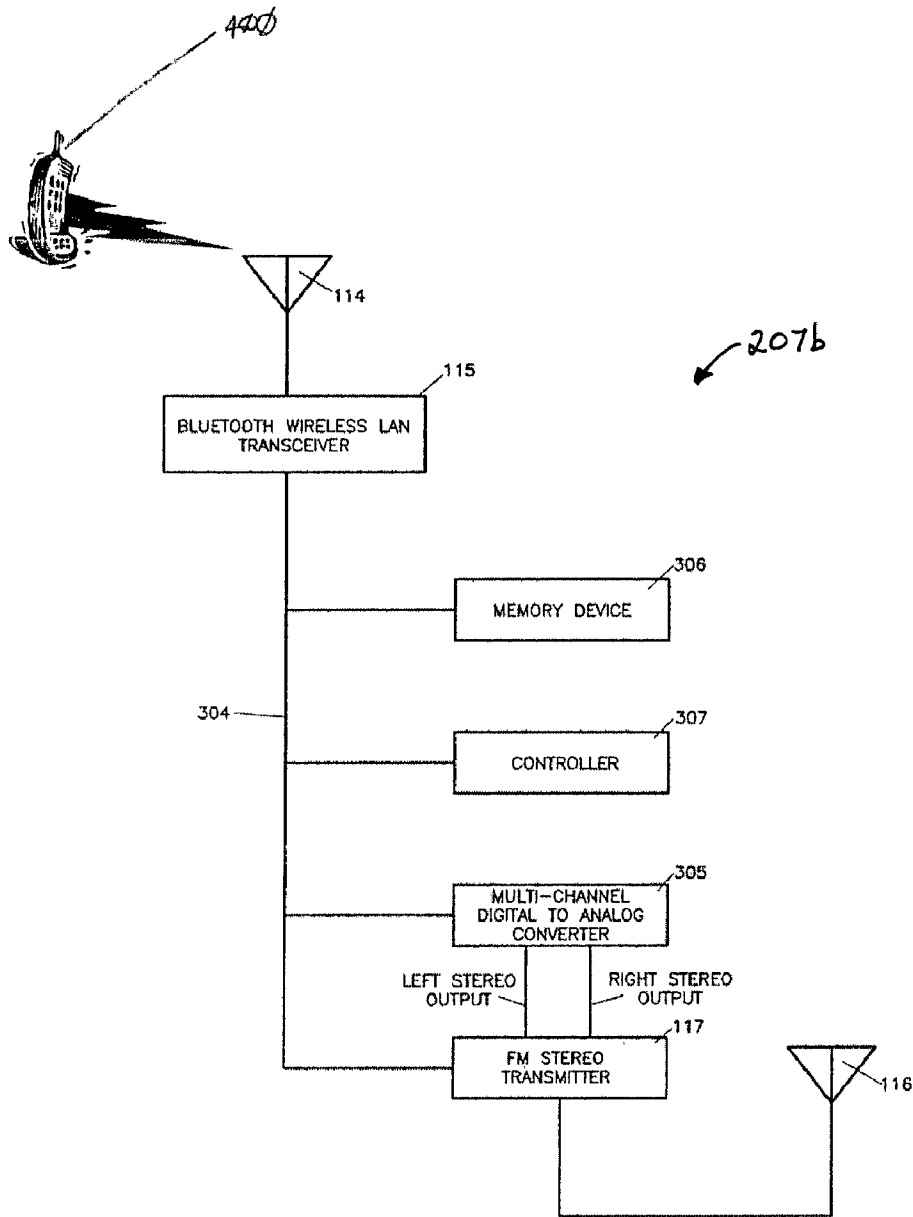
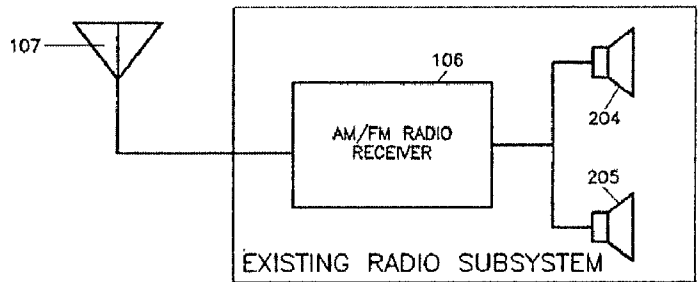


FIG. 4



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