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## (12) **EX PARTE REEXAMINATION CERTIFICATE** (9171st)

### **United States Patent**

Porter et al.

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## (54) ANTENNA FOR ELECTRIC METER AND METHOD OF MANUFACTURING THEREOF

(75) Inventors: Lawrence R. Porter, Dallas, TX (US); John Paul King, Arlington, TX (US);

**Doug Justice**, Wilsonville, OR (US)

(73) Assignee: **Transdata, Incorporated**, Richardson,

TX (US)

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(\*) Notice: This patent is subject to a terminal dis-

laimer.

#### Related U.S. Application Data

(63) Continuation of application No. 09/040,113, filed on Mar. 17, 1998, now Pat. No. 6,181,294.

(51) Int. Cl.

G01D 4/00	(2006.01)
H01Q 9/04	(2006.01)
H01Q 9/16	(2006.01)
H01Q 1/22	(2006.01)
G01R 22/00	(2006.01)

- (52) **U.S. Cl.** ...... **343/719**; 324/142; 340/870.02; 340/870.03; 343/872

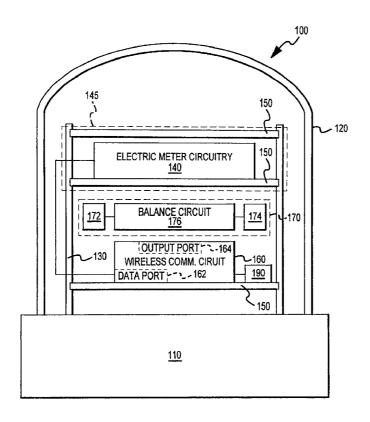
#### (56) References Cited

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/011,547, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner—Anjan K. Deb

#### (57) ABSTRACT

For use with an electric meter chassis by having a dielectric housing protruding therefrom, an antenna for allowing electric meter circuitry within the chassis to communicate wirelessly through the dielectric housing and a method of manufacturing the same. In one embodiment, the antenna includes: (1) antenna elements, located within the dielectric housing and adapted to transmit and receive electromagnetic radiation and (2) a balance circuit, coupled to the antenna elements to cause the antenna elements to act as an antenna and couplable to an unbalanced output port of a wireless communication circuit, that balances an impedance of the unbalanced output port thereby to balance the antenna.



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# EX PARTE REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

NO AMENDMENTS HAVE BEEN MADE TO THE PATENT

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AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

The patentability of claims 1-27 is confirmed.

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