



[54] POWER TRANSFER APPARATUS FOR CONCURRENTLY TRANSMITTING DATA AND POWER OVER DATA WIRES

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5,457,629	10/1995	Miller et al.	340/825.52
5,477,091	12/1995	Fiofina et al.	340/310.01
5,684,826	11/1997	Ratner	340/310.01
5,994,998	11/1999	Fisher et al.	340/310.01

[75] Inventors: David A. Fisher, Menlo Park; Lawrence M. Burns, Mountain View; Stephen E. Muther, Palo Alto, all of Calif.

OTHER PUBLICATIONS

JVC Information Products Company of America, sales brochure and price list for "VIPSLAN-10 Infrared Wireless LAN System", May 1996.

Clegg, P., "VIPSLAND-10 Streaks Off the Wire", Lan Times, Sep. 1995.

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[21] Appl. No.: 09/416,067

[22] Filed: Oct. 12, 1999

Related U.S. Application Data

[63] Continuation of application No. 08/865,016, May 29, 1997, Pat. No. 5,994,998.

[57] ABSTRACT

[51] Int. Cl.7 H04B 1/00; G08C 19/00

Electrical supply current, sufficient to power a wireless access point, is transmitted concurrently with a network data signal across a transmission line. A power and data coupler couples the network data signal and the power signal, received through a data input and a power input respectively, and transmits the coupled signal, to a distance of three meters or more, over the transmission line to a power and data decoupler. The power and data decoupler separates the power signal from the network data signal and supplies those signals to a power output port and a data output port, respectively, for use by a wireless access node. The power signal may be modulated at a low frequency relative to the frequency of the data signal, and the network data signal has a data transmission rate of one megabit/second or higher.

[52] U.S. Cl. 340/310.01; 340/310.02; 340/310.08; 340/825.72; 375/257; 375/259; 455/3.1; 455/3.3

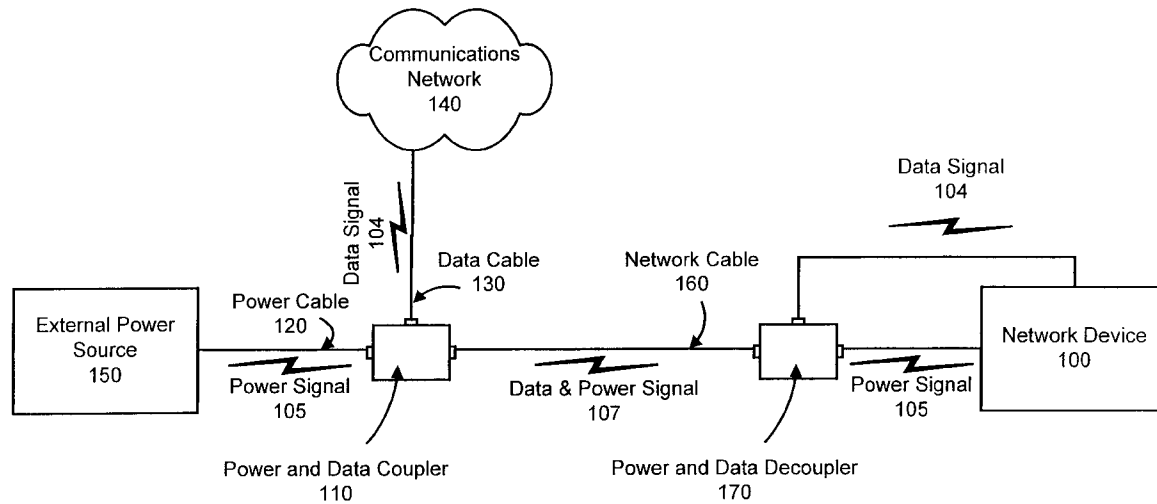
[58] Field of Search 340/310.01, 310.02, 340/310.08, 825.72; 455/3.1, 3.3; 370/487, 490, 419, 442; 375/257, 259; 307/126, 128, 127

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5,148,144	9/1992	Sutterlin et al.	340/310.01
5,368,041	11/1994	Shambroom	128/731

10 Claims, 5 Drawing Sheets



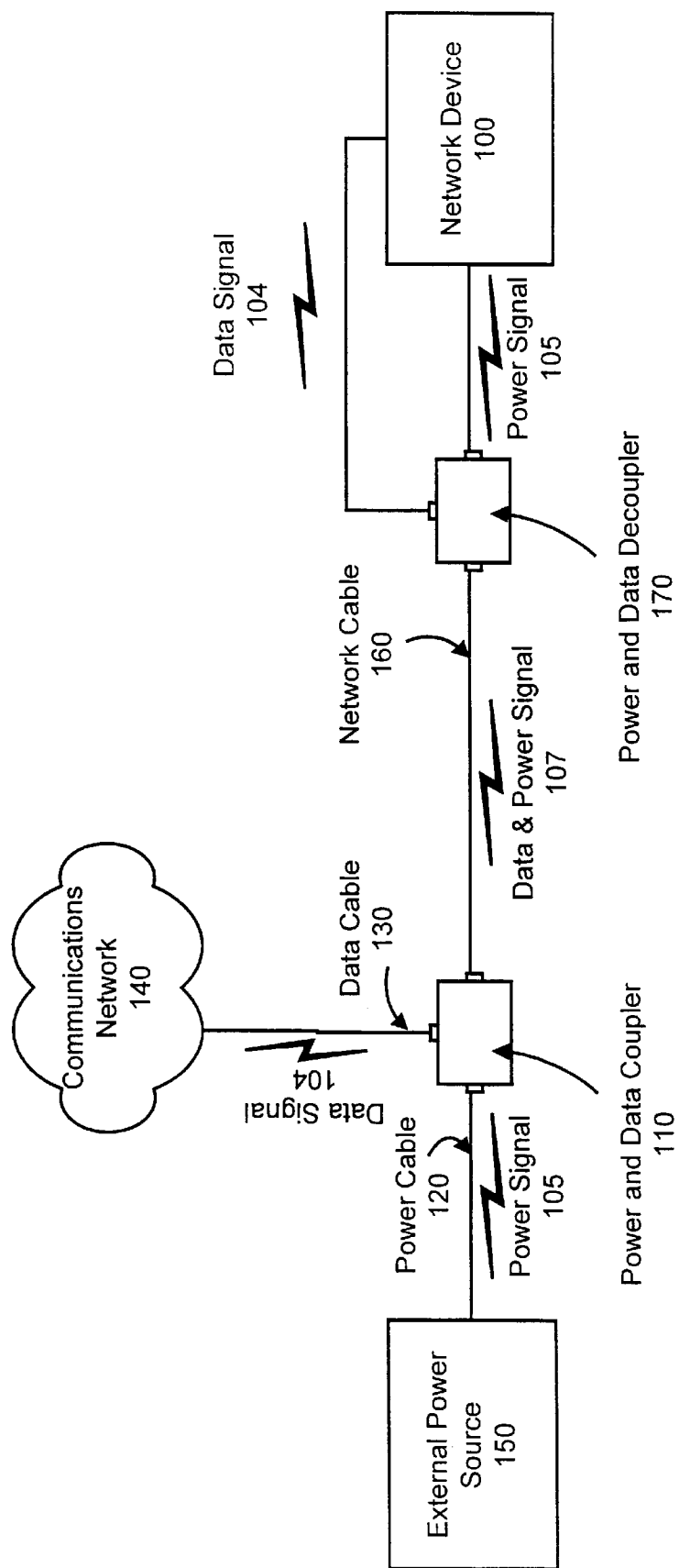


Figure 1

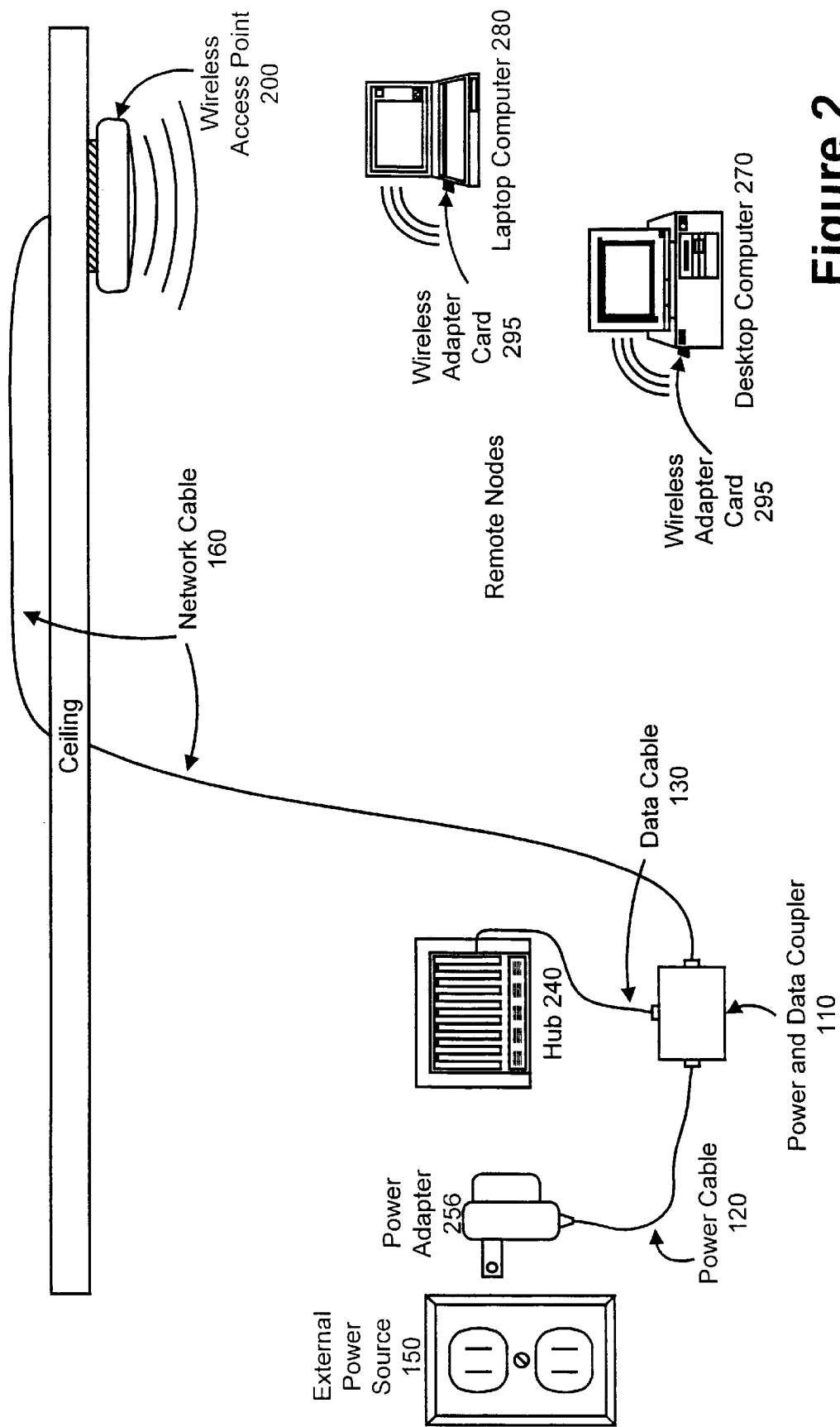


Figure 2

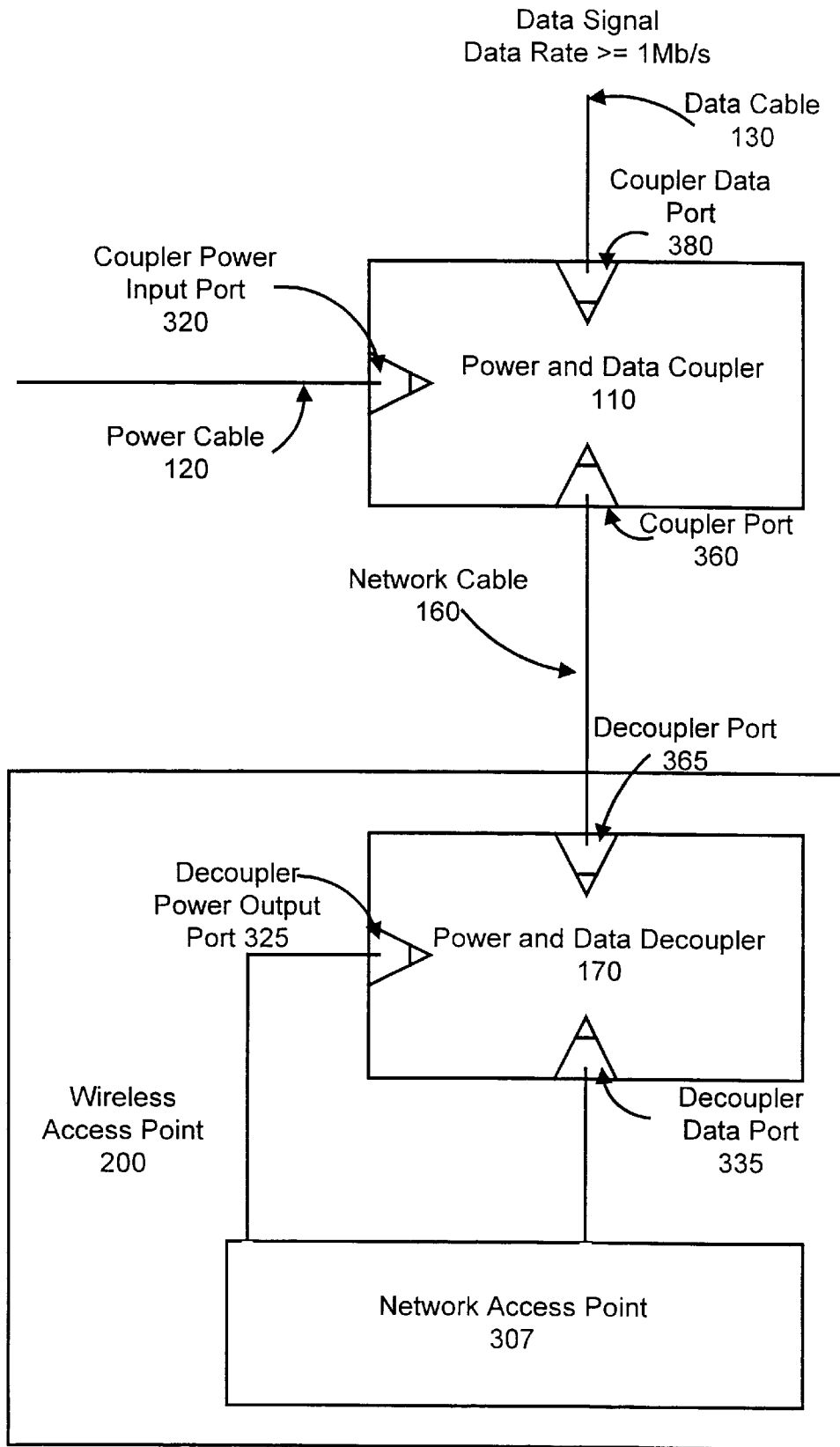


Figure 3

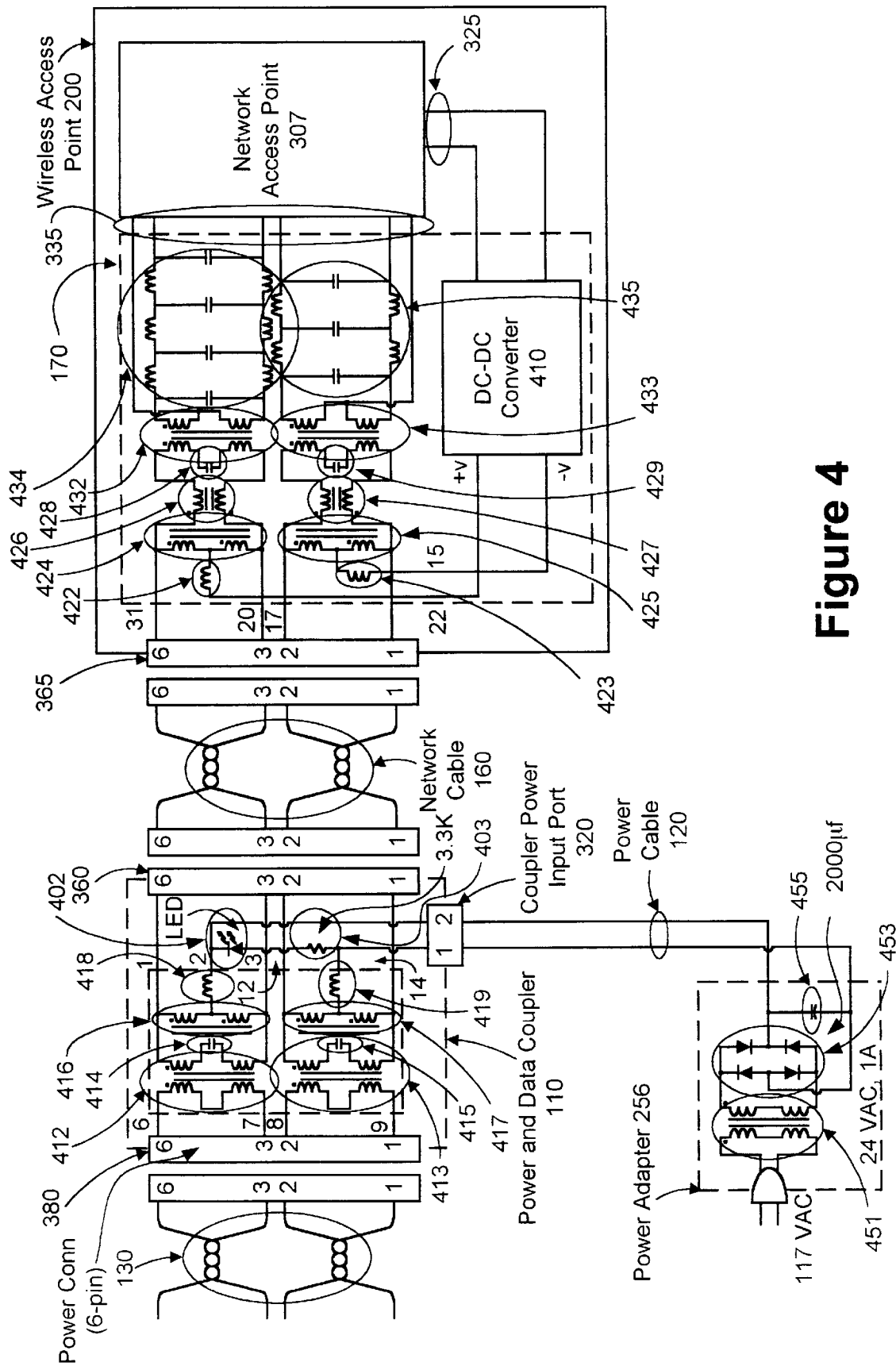


Figure 4

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