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Milbrandt

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(54) **SYSTEM AND METHOD FOR DETERMINING THE TRANSMIT POWER OF A COMMUNICATION DEVICE OPERATING ON DIGITAL SUBSCRIBER LINES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) Appl. No.: **09/364,775**

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(51) **Int. Cl.**⁷ **H04M 1/00**; H04M 9/00

(52) **U.S. Cl.** **379/399.01**; 379/399.02;
375/222; 375/227; 370/255

(58) **Field of Search** 379/399.01, 399.02,
379/414, 416, 417; 455/67.1, 115, 226.1–226.3;
370/201, 252, 318; 375/219–222, 227

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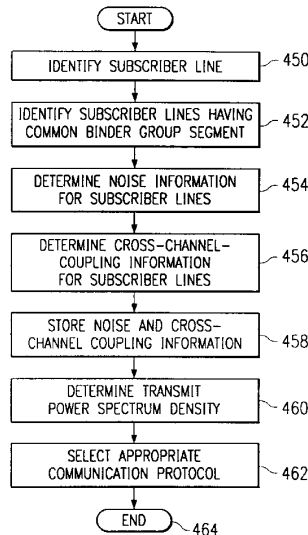
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(57) **ABSTRACT**

A system for determining the transmit power of a communication device operating on a twisted pair subscriber line includes a communication server coupled to a first subscriber line and a second subscriber line. The communication server comprises a communication device that communicates a signal using the first subscriber line. A memory coupled to the communication server stores noise information and cross-channel-coupling information for the first subscriber line and the second subscriber line. A processor coupled to the memory determines the transmit power of the communication device based upon the noise information and the cross-channel-coupling information.

28 Claims, 5 Drawing Sheets



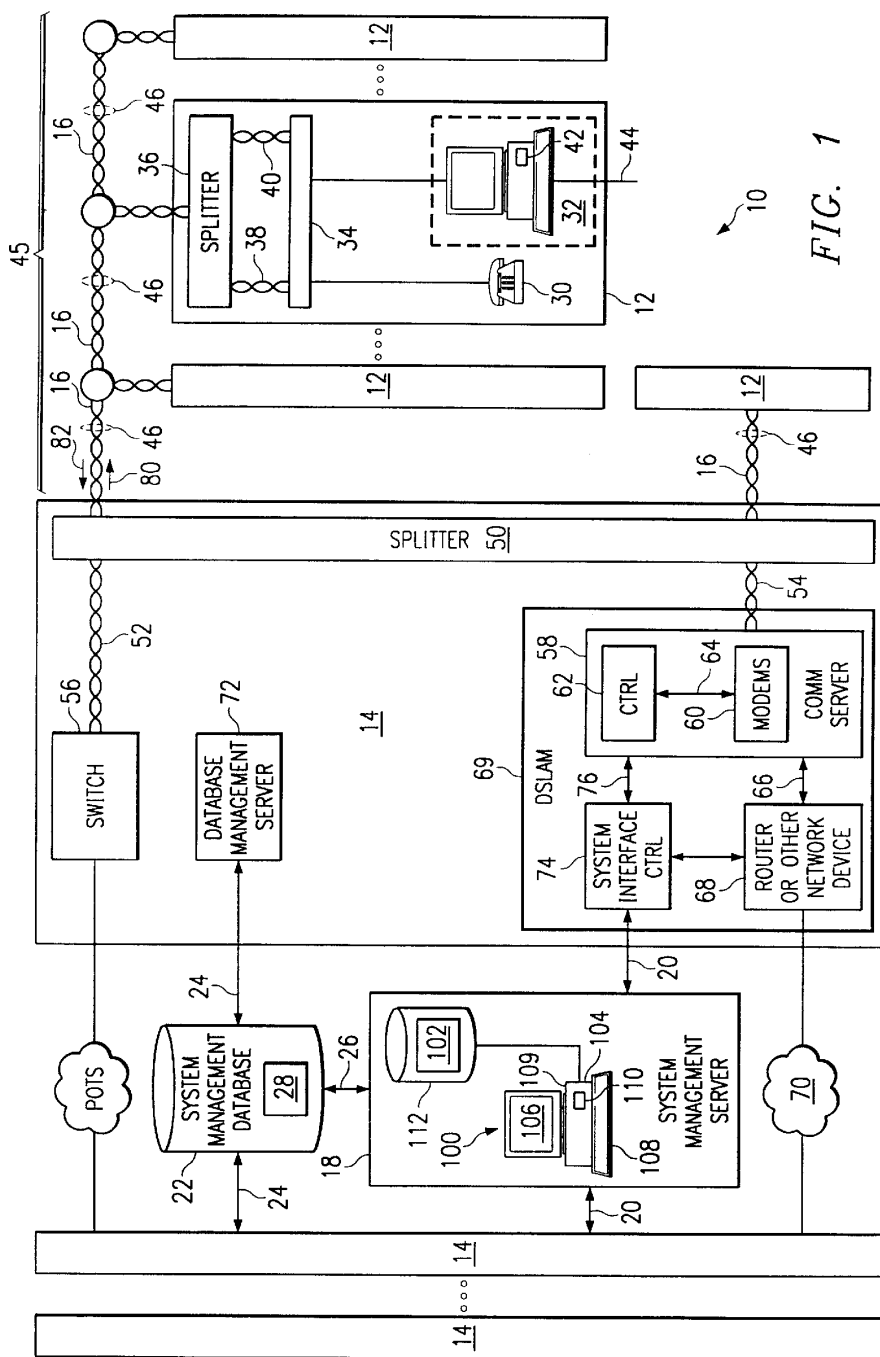


FIG. 1

FIG. 2

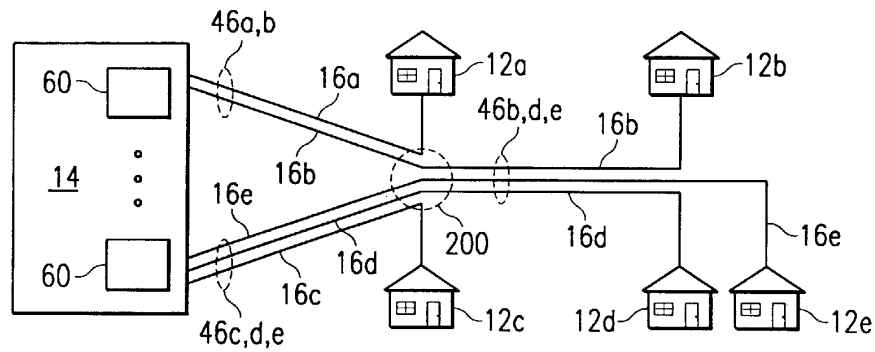


FIG. 4

COMMUNICATION DEVICE	SUBSCRIBER LINE	COMMUNICATION PROTOCOL	NUMBER OF CONNECTION ATTEMPTS
214-555-1234	214-555-3129	xDSL	2
214-555-9765	214-555-2199	xDSL	1
214-555-7069	214-555-2177	V.90	1
⋮	⋮	⋮	⋮
214-555-2163	214-555-8818	xDSL	3
214-555-3976	214-555-6255	xDSL	2

400

402 404 406 408

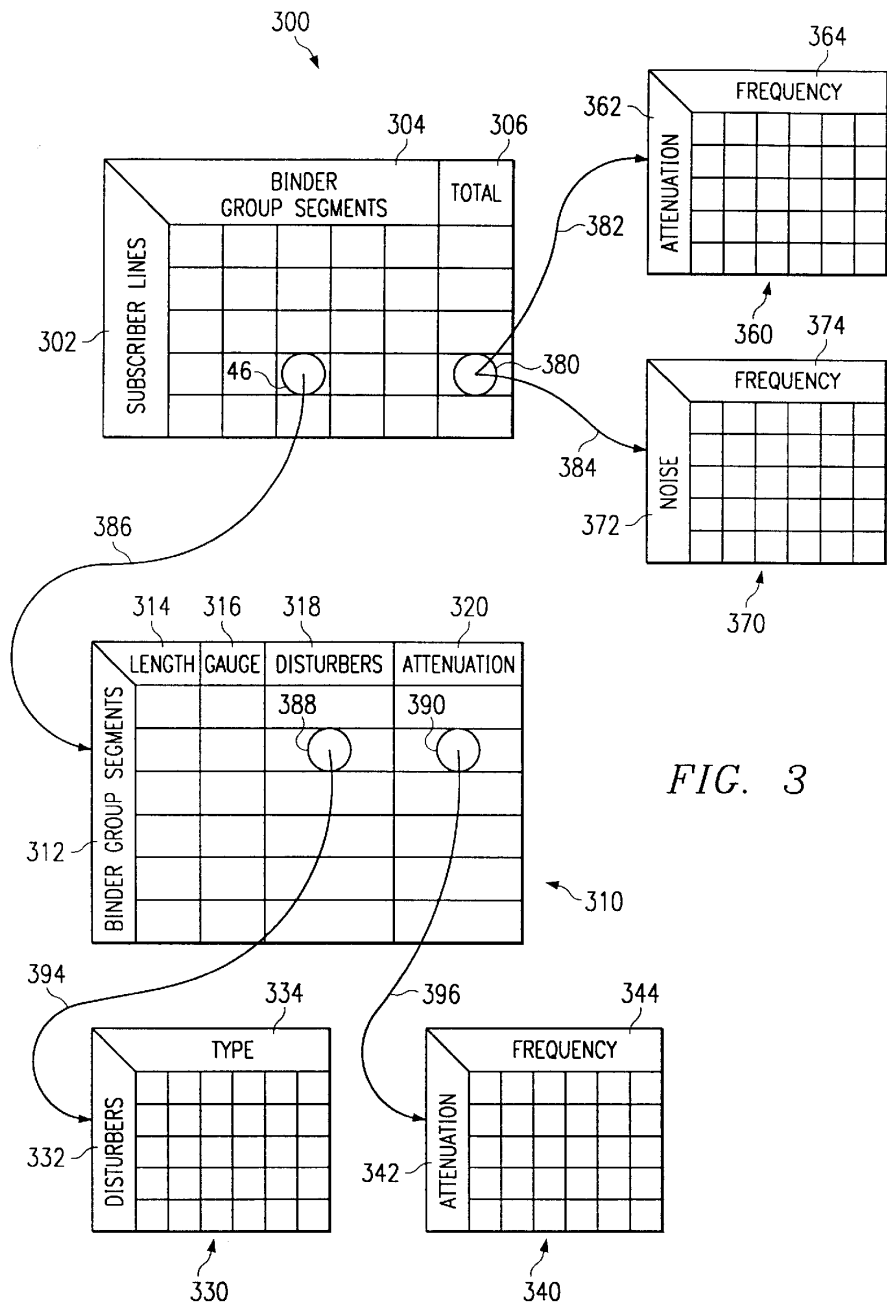


FIG. 3

FIG. 5

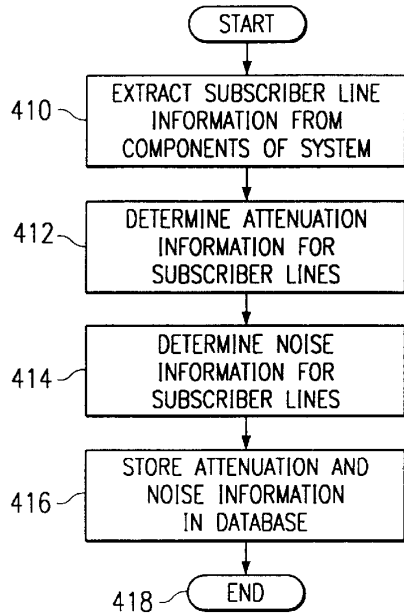


FIG. 6

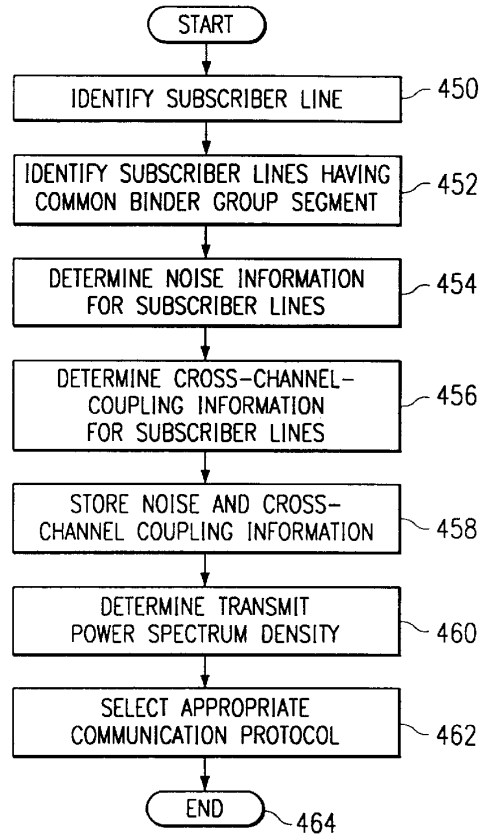
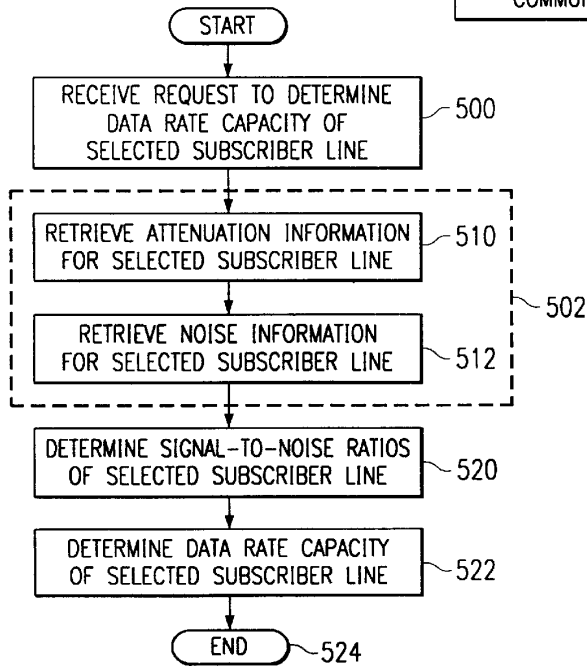


FIG. 7



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