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(12) **United States Patent**
Hwang et al.

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- (54) **ADAPTIVE TRANSMISSION SYSTEM IN A NETWORK**
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- (73) **Assignee:** Legerity, Inc., Austin, TX (US)
- (*) **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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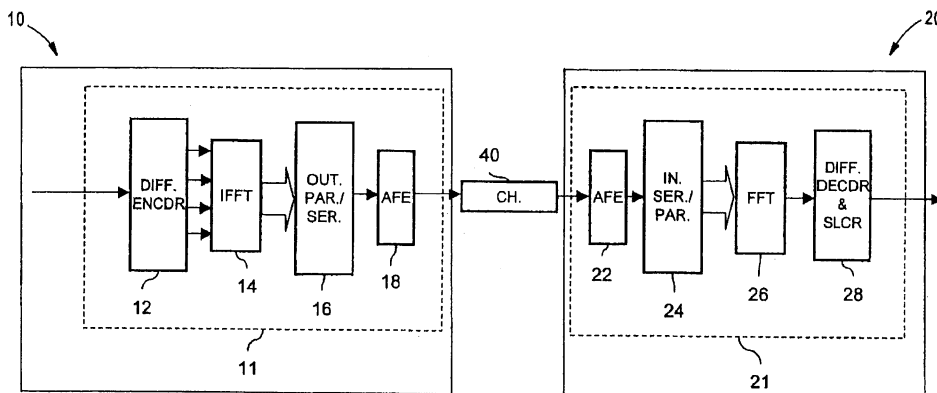
- (21) **Appl. No.:** 09/286,997
- (22) **Filed:** Apr. 7, 1999
- (51) **Int. Cl.⁷** H04J 3/06
- (52) **U.S. Cl.** 370/354; 370/389
- (58) **Field of Search** 370/354, 403, 370/543, 389, 506; 375/222, 254; 714/749

(57) **ABSTRACT**

A network node configured for transmitting and receiving data to and from other network nodes is able to adapt the transmission rate based on the network conditions. The node initially transmits the data to a receiving node at a first rate. If the data is not received error-free, the node is able to reduce the number of data bits of the current packet that are being transmitted and to increase the amount of redundant data. The node repeats the process until error-free transmission is obtained.

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17 Claims, 5 Drawing Sheets



ARRIS-1013

Arris Group, Inc. v. TQ Delta
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FIG. 1 (PRIOR ART)

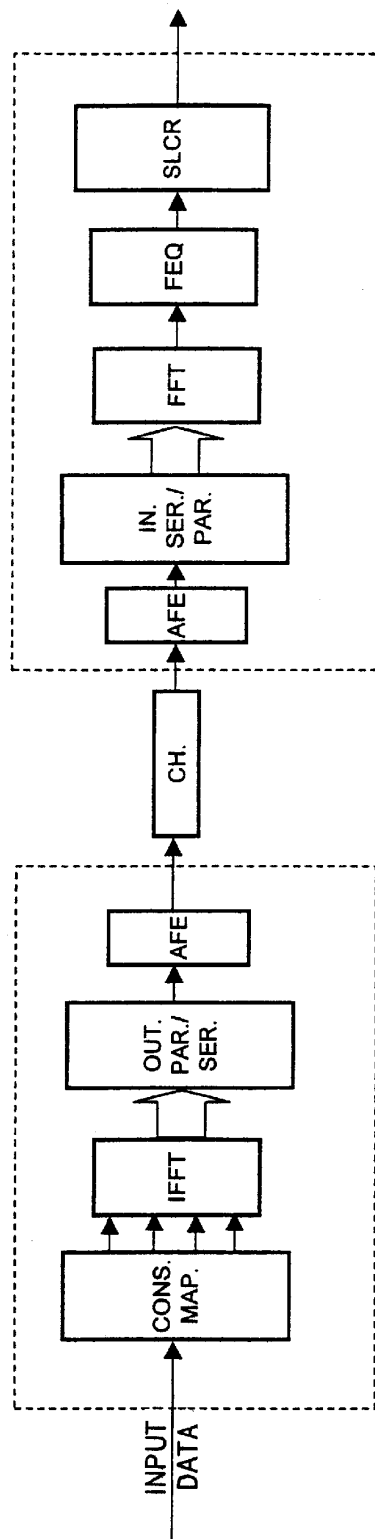
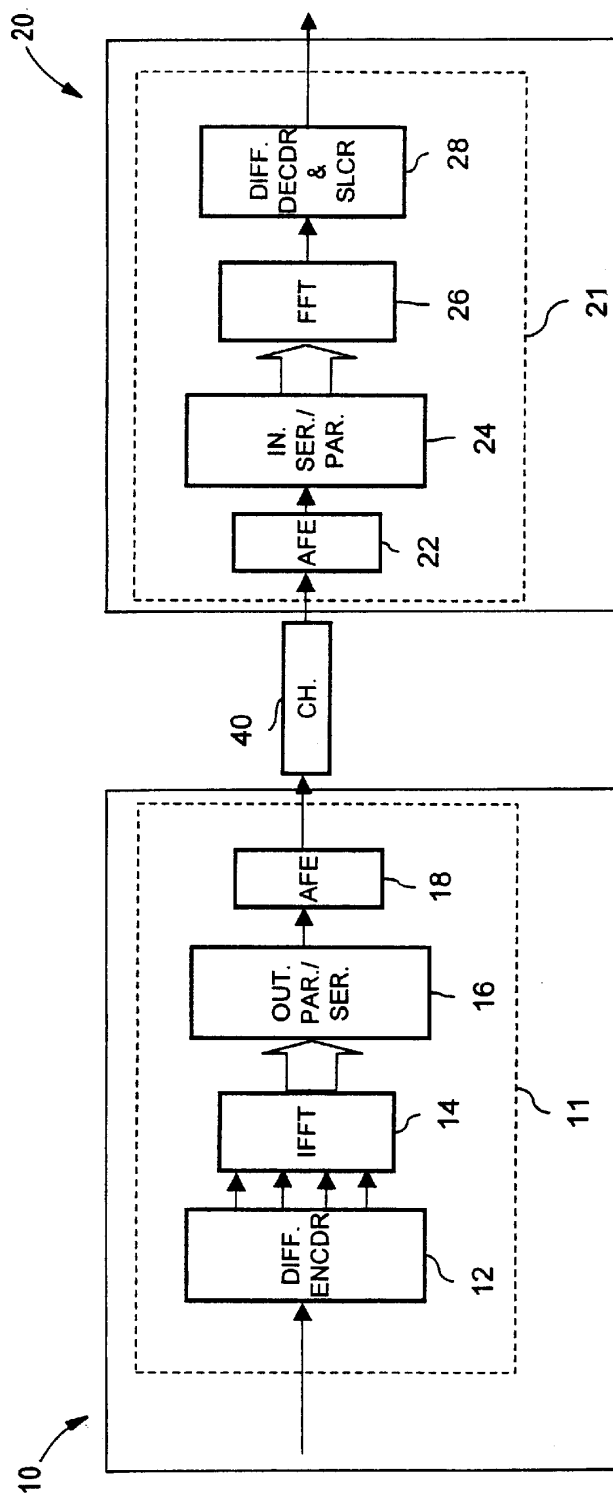
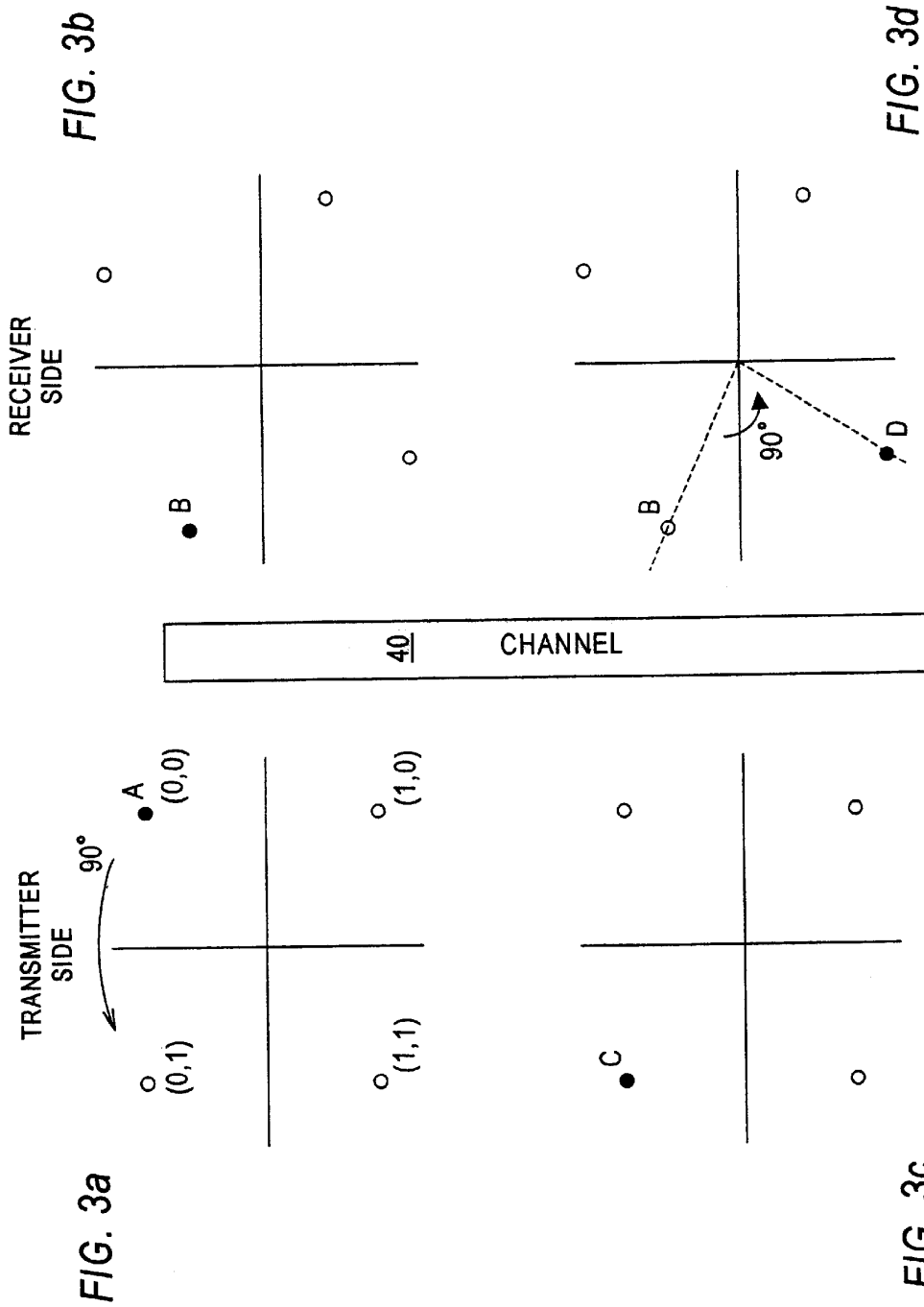


FIG. 2





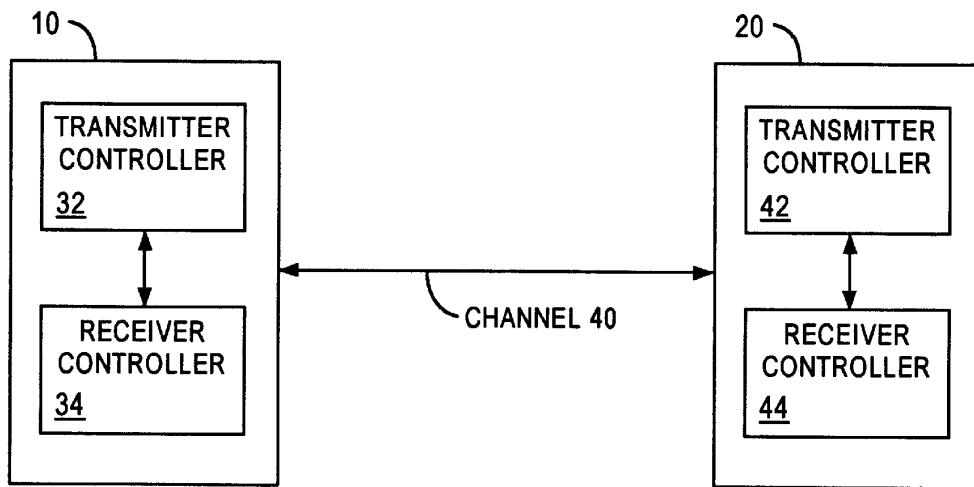


FIG. 4

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