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(54) **REVERSE LINK FOR A SATELLITE COMMUNICATION NETWORK**

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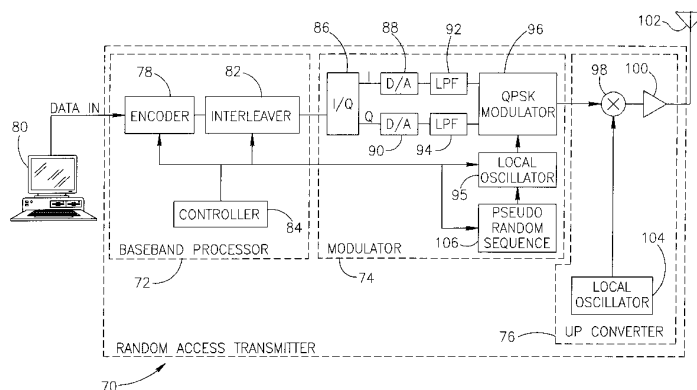
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(57) **ABSTRACT**

The present invention is a return link for a satellite communication system. The return link described herein is suitable for use in any type of communications network such as networks used for Internet access purposes. The return link in combination with a forward link forms a complete two way communication system via satellite. The return link comprises two separate communication schemes used in combination to implement the return link of the satellite system. The first communication scheme uses a random access method based on a non synchronous frequency hopping code division multiple access technique (NS/FH/ CDMA). The second communication scheme uses a channel assignment method based on a frequency division multiple access (FDMA) technique. Data generated by a user is transmitted utilizing one of the two communication schemes in accordance with the content and amount of data generated. Messages requiring a relatively low transmission rate, such as short bursty messages, utilize the random access transmission method. On the other hand, messages requiring a higher transmission rate, such as video conferencing, utilize the channel assignment method.

36 Claims, 13 Drawing Sheets

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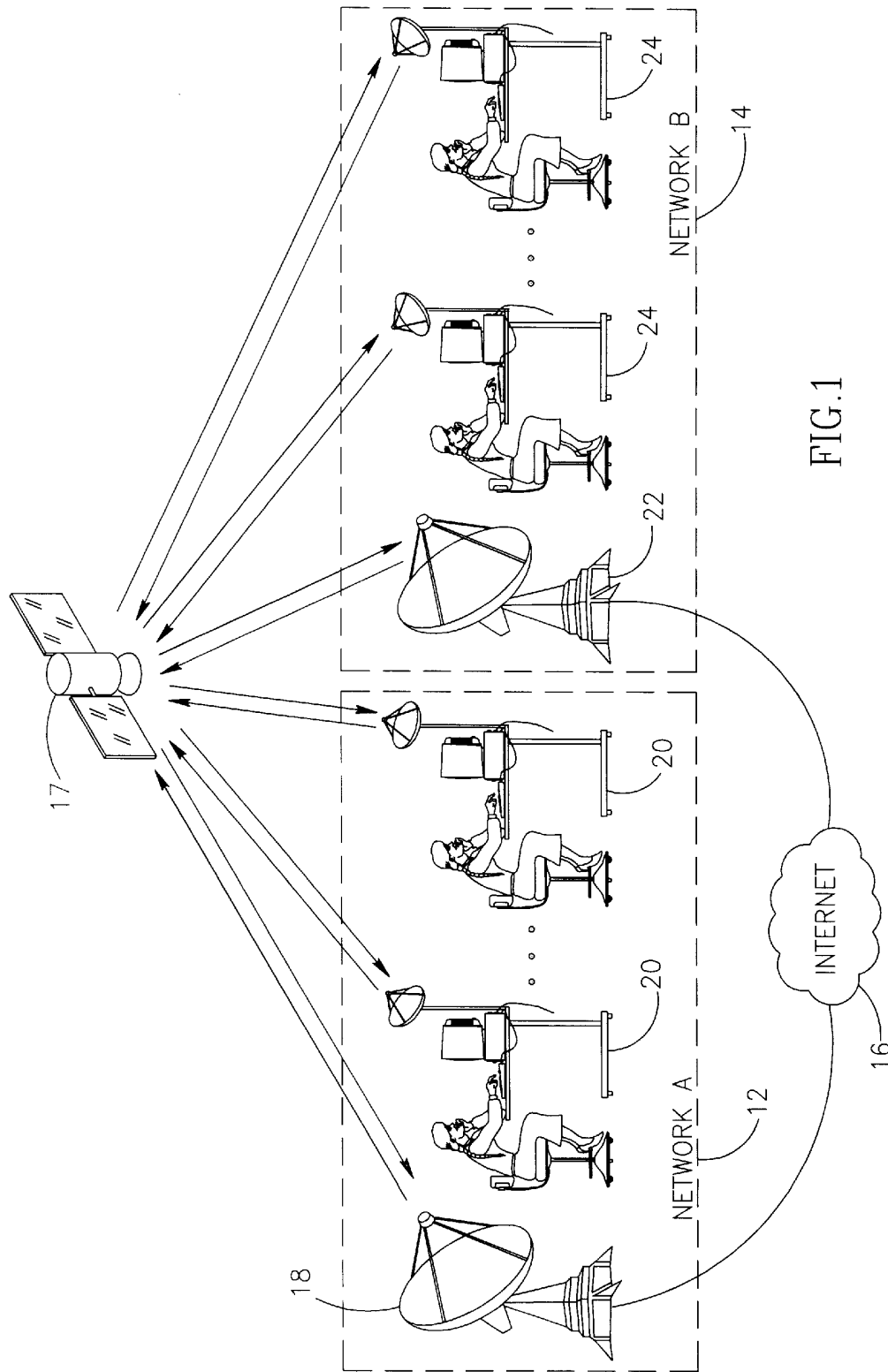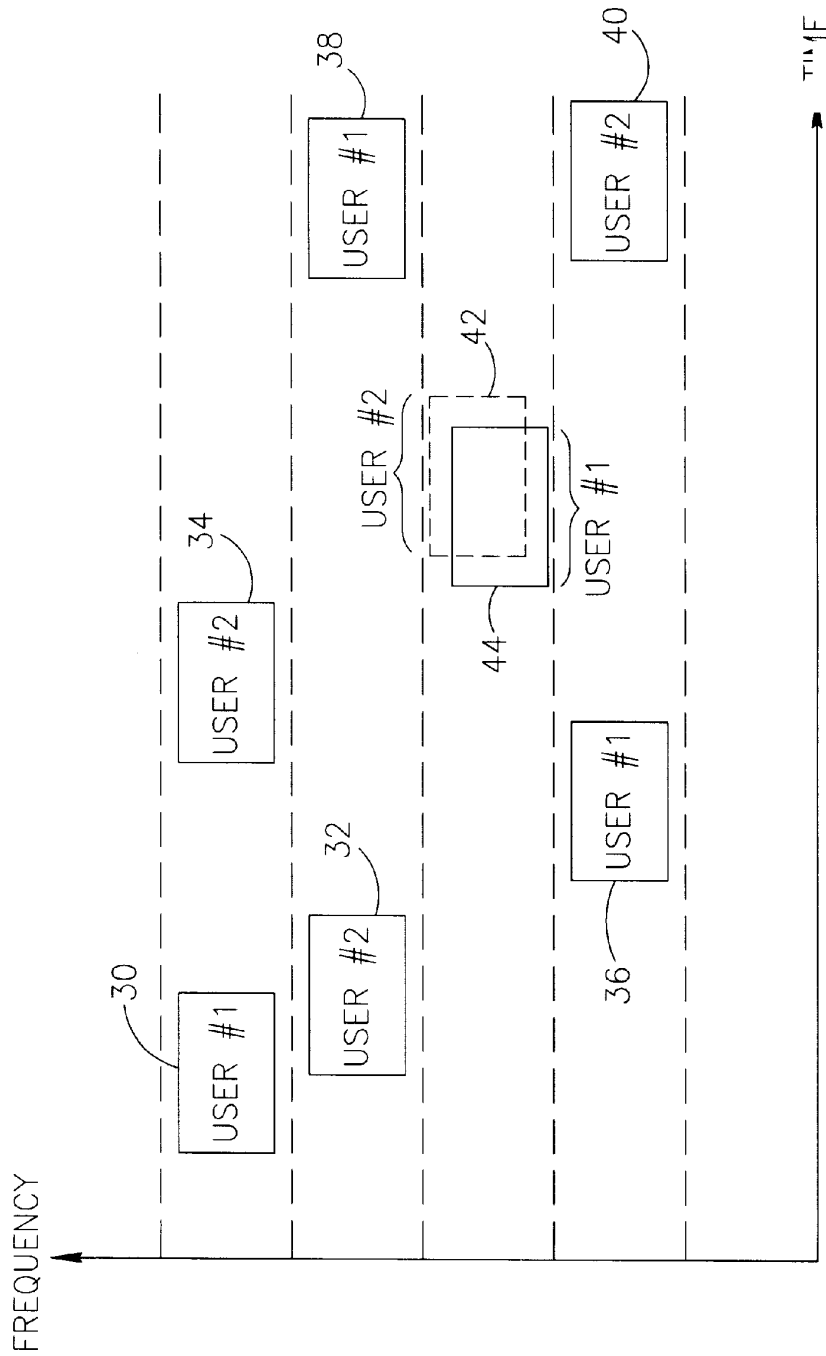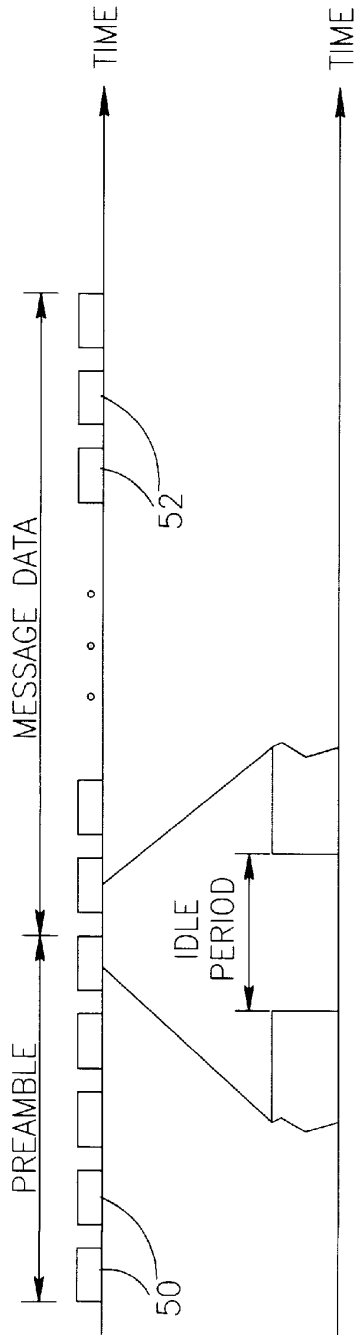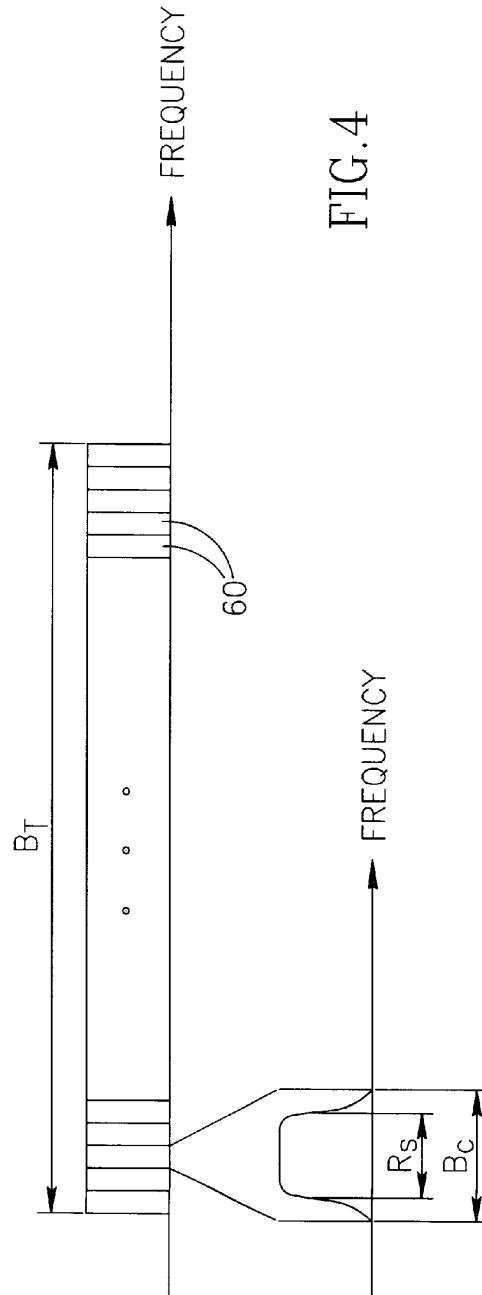
FIG.1

FIG.2

FIG.3

FIG.4

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