

LOCAL AREA NETWORK TRANSFERRING DATA USING ISOCRONOUS AND ASYNCHRONOUS CHANNELS

ABSTRACT

In a network system, a plurality of nodes are communicable with one another to exchange information and to transfer data, and a bus is provided for connection to the nodes and for configuration of logical paths to logically link one node to another node so as to secure transfer of the data. Each node has at least one port which is allocated for accessing the bus and which is classified into four types of an isochronous talker, an isochronous listener, a multicast talker and a multicast listener. Each node binds an isochronous channel number and a communication band to the isochronous talker when the same is allocated for isochronously transmitting the data labeled by the bound isochronous channel number to the bus through the bound communication band. Each node binds an isochronous channel number to the isochronous listener when the same is allocated so that the isochronous listener can exclusively receive data transmitted from another isochronous talker allocated to another node if the transmitted data is labeled by the same isochronous channel number as that bound to the isochronous listener. Each node binds a multicast channel number to the multicast talker when the same is allocated for asynchronously broadcasting data labeled by the bound multicast channel number to the bus. Otherwise, each node binds a multicast channel number to the multicast listener when the

same is allocated so that the multicast listener can exclusively receive data transmitted from another multicast talker allocated to another node if the transmitted data is labeled by the same multicast channel number as that bound to the multicast listener. (Figure 1)