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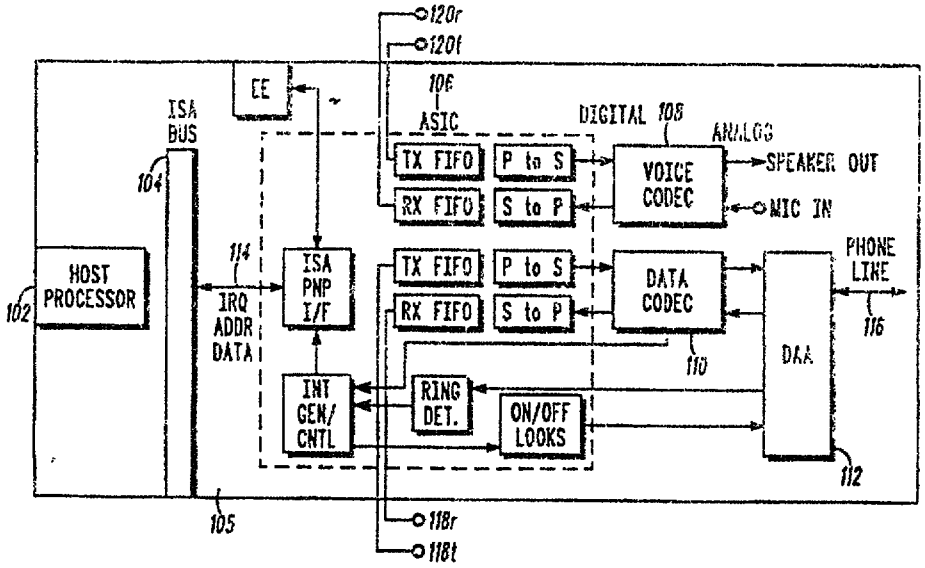
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(54) Title: A MODEM IMPLEMENTED IN SOFTWARE FOR OPERATION ON A GENERAL PURPOSE COMPUTER IN A NON-REAL-TIME ENVIRONMENT



(57) Abstract

A software implementation of a modem, particularly designed to execute on a general purpose host processor, controlled by a non-real-time, multi-tasking operating system (OS), such as the Windows 95 OS. The software modem is scaleable and portable. In this fashion, communication protocols (particularly datapumps) may be easily added to, or removed from, the system, and the modem may be easily adapted for use on other types of processors and operating systems. The controller and datapump portions execute as a plurality of interacting subsystems, each of which can execute at least one of several priority levels. A HRT level routine is responsible for handling an ASIC that buffers transmit and receive samples destined to and received from the phone lines. A SRT level task includes logic that needs time functionality, but which is not time-critical like the HRT logic. BRT routines execute in an event-driven basis and are used for many controller functions.