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A Modem for the IBM PC

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A MODEM
FOR THE IBM PC

Jack Edington

May 2, 1985

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Abstract
of
A Modem
For the IBM PC

Jack Edington

May 2, 1985

This project was conceived in September of 1984. It is essentially a modem for the IBM Personal Computer. The modem enables the IBM PC to communicate with remote computer systems through land-based telephone lines. Some of the prominent features of the modem include the ability to auto-dial a telephone number, auto-answer an incoming call, operate at full-duplex, 300 bps, FSK mode. The modem is constructed on one circuit card with an IBM edge connector and is housed completely inside the IBM PC chassis. Connectors to the outside include one 25 pin, RS-232 style connector and two RJ-11 modular telephone jacks. All power is obtained from the IBM PC power supply. The modem contains, in addition to the modem, a pulse dialer, RS-232 interface and a non-approved Direct Access Arrangement for coupling with the telephone lines. The software for the modem runs in basic on the IBM PC. It consists of test routines to test the various functions of the modem. Address decoding networks enable ports at address H300, H310, H311 and H2F8-2FF. This circuitry enables I/O ports, the 8250 UART and the pulse dialer chip. Filtering of receive and transmit frequencies is accomplished in the TMS 99532 modem chip.