



Tech Info Library

Apple Data Modem 2400: Specifications (Discontinued)

Revised: 6/20/94
Security: Everyone

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I. Technical Specifications

A. Regulatory

1. FCC Registration Number: BCG794-12381-DM-E
2. Ringer Equivalence Number: 1.1B
 - a. The total number of ringer equivalence numbers on any one telephone line cannot exceed 5.0.
3. Canadian Load Number: 7

B. Self-Test

1. The modem executes a brief self-test when first powered up, and sounds two beeps if all tests pass.
 - a. This test and response cannot be disabled.

C. Data Format

1. Protocol: Asynchronous
2. Character Length
 - a. 7 data bits
 - 1) Stop bits: 1 or 2
 - 2) Parity: Odd, even, fixed: mark/space
 - b. 7 data bits
 - 1) Stop bits: 2
 - 2) No parity
 - c. 8 data bits
 - 1) Stop bits: 1 or 2
 - 2) No parity
3. Mode: Full duplex

D. Compatibility

1. Complete set of Hayes modem command instructions

E. Error Correction

1. Microcom Network Protocol (MNP) Classes 1 through 4

F. Transmission Speeds

1. For all speeds
 - a. Tolerance in character asynchronous format (DTE data rate)
 - 1) +1.0%
 - 2) -2.5%
 - b. Tolerance in modulation rate
 - 1) +/- 0.01%
2. 2400 bits per second (bps)
 - a. Standard: V.22bis
 - b. Modulation: Quadrature Amplitude Modulation (QAM)
3. 1200 bits per second (bps)
 - a. Standard: V.22A/B, Bell 212A
 - b. Modulation: Differential phase-shift keying (DPSK)
4. 300 bits per second (bps)
 - a. Standard: Bell 103
 - b. Modulation: Differential phase-shift keying (DPSK)

G. Operating Modes

1. Auto or manual dial (including redial)
 - a. Tone: DTMF (Dual-Tone Multi-Frequency--"Touch Tone")
 - 1) Frequency tolerance: +/- 1/0%
 - 2) Tone balance: Within 3dB
 - b. Pulse (Rotary)
 - 1) Dialing duty cycle: 39%/61% mark/break ratio
 - 2) Dialing rate: 10 pps
2. Auto or manual answer

H. Receiver Dynamic Range

1. -10 to -45 dBm, full duplex

I. Transmitter Level

1. -10dBm +/- 1dB, fixed

J. Parameter Memory

1. Nonvolatile RAM for storing settings
 - a) 10,000-cycle life

K. Command Buffer

1. 40 characters, not including AT or any following spaces, dashes, or parentheses.

L. Interface

1. RS-422-A, with mini-DIN8 connector (standard Macintosh pinout)

M. Environmental Specifications

1. Operating temperature: 32-104 degree F (0-40 degree C)
2. Relative humidity: 95% noncondensing

N. Line Monitoring

1. Software: Print status messages to computer
2. Audio: Built-in speaker with external volume adjustment

- O. Power Source
 - 1. AC input (U.S. and Canada)
 - a. 110V +/- 10%, 60 Hz
- P. Power Consumption
 - 1. 7 watts maximum
- Q. Physical Characteristics (modem only)
 - 1. Dimensions: 200mm x 120mm x 45mm
 - 2. Weight: 500 grams

II. System Configuration

- A. Computer
 - 1. Apple II, Apple II Plus, or Apple IIe with Super Serial Card or compatible serial interface
 - 2. Apple IIc with serial number greater than 510,000
 - a. Apple IIc with serial number of 510,000 or lower, contact Authorized Apple Dealer for information on free logic board upgrade.
 - 3. Macintosh family
 - 4. Computer with RS-232 port
- B. Interface Cable
 - 1. Macintosh Plus or later: M0197
 - 2. Macintosh 512K or earlier: M0196
 - 3. Apple II, Apple II Plus, Apple IIe: A2C0312
 - 4. Apple IIc: A2C4313
 - 5. Apple IIc Plus, Apple IIGS: M0197
- C. Standard single-line telephone cable with RJ-11 modular jack

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