

T-75-57

DISTINCTIVE CHARACTERISTICS

- ## GENERAL DESCRIPTION

four bit times, and decodes Manchester data with worst case ± 19 ns phase jitter at 10 MHz. SIA provides both guaranteed signal threshold limits and transient noise suppression circuitry in both data and collision paths to minimize false start conditions.

The diagram illustrates the CSMA/CD interface for the 68180, showing the flow of data and control signals between the Controller Interface and the Transceiver Interface.

Controller Interface (Left):

- Receive Data (RX):** Output from the Manchester Decoder.
- Receive Clock (RCLK):** Output from the Manchester Decoder.
- Carrier Present (RENA):** Output from the Carrier Detect block.
- Collision (CLSN):** Output from the Collision Detect block.
- Transmit Data (TX):** Input to the Manchester Encoder.
- Transmit Enable (TENA):** Input to the Manchester Encoder.
- Transmit Clock (TCLK):** Input to the Manchester Encoder.

Transceiver Interface (Right):

- Receive + / Receive -:** Differential inputs to the Data Receiver and Noise Reject Filter.
- Collision + / Collision -:** Differential inputs to the Noise Reject Filter.
- Transmit + / Transmit -:** Differential outputs from the Manchester Encoder.

Internal Blocks and Connections:

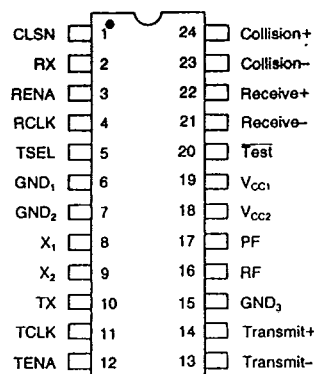
- Manchester Decoder:** Receives RX and RCLK, outputs to Data Receiver and Carrier Detect.
- Carrier Detect:** Receives RCLK and RENA, outputs to Manchester Decoder.
- Collision Detect:** Receives CLSN and Collision signals, outputs to Manchester Decoder.
- Manchester Encoder:** Receives TX, TENA, and TCLK, outputs to Transmit + and Transmit -.
- Data Receiver:** Receives Receive + and Receive -, outputs to Manchester Decoder.
- Noise Reject Filter:** Receives Receive +, Receive -, Collision +, and Collision -, outputs to Manchester Decoder.
- Crystal OSC:** Receives XTAL₁ and XTAL₂ signals, outputs to Manchester Encoder.

BD002071

Part No.	Description
Am7990	Local Area Network Controller for Ethernet (LANCE)
Am7996	IEEE-802.3/Ethernet/Cheapernet/Transceiver

<u>Publication #</u>	<u>Rev.</u>	<u>Amendment</u>
03378	F	/0
Issue Date: March 1989		

CONNECTION DIAGRAM



CD001521

Note: Pin 1 is marked for orientation

ORDERING INFORMATION AMD STANDARD PRODUCTS

AMD products are available in several packages and operating ranges. The order number (Valid Combination) is formed by a combination of:

- a. Device Number
- b. Speed Option (if applicable)
- c. Package Type
- d. Temperature Range
- e. Optional Processing

Am7992B

D

C

B

e. OPTIONAL PROCESSING

Blank = Standard processing
B = Burn-in

d. TEMPERATURE RANGE

C = Commercial (0 to +70°C)

c. PACKAGE TYPE

D = 28-Pin (Slim) Ceramic DIP (CD3024)

b. SPEED OPTION

Not Applicable

a. DEVICE NUMBER/DESCRIPTION

Am7992B
Serial Interface Adapter

Valid Combinations

AM7992B	DC, DCB
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Valid Combinations

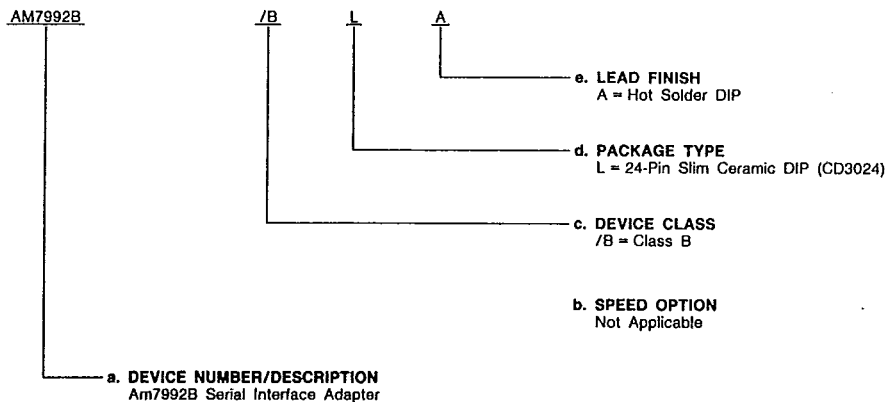
Consult the local AMD sales office to confirm availability of specific valid combinations, to check on newly released valid combinations, and to obtain additional data on AMD's standard military grade products.

ORDERING INFORMATION (Cont'd.)

APL Products

AMD products for Aerospace and Defense applications are available in several packages and operating ranges. APL (Approved Products List) products are fully compliant with MIL-STD-883C requirements. The order number (Valid Combination) for APL products is formed by a combination of:

- a. Device Number
- b. Speed Option (if applicable)
- c. Device Class
- d. Package Type
- e. Lead Finish



Valid Combinations	
AM7992B	/BLA

Valid Combinations

Valid Combinations list configurations planned to be supported in volume for this device. Consult the local AMD sales office to confirm availability of specific valid combinations or to check for newly released valid combinations.

Group A Tests

Group A tests consist of Subgroups
1, 2, 3, 7, 8, 9, 10, 11.