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4800CD

CIRCUIT DESCRIPTION FOR THE
410800 4K(2K/2K) ROM CIRCUIT BOARD ASSEMBLY

Sheet 1

REVISIONS

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APPROVALS

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CIRCUIT DESCRIPTION FOR THE 410800 4K (2K/2K) ROM CIRCUIT BOARD ASSEMBLY

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CIRCUIT DESCRIPTION FOR THE 410800 4K (2K/2K) ROM CIRCUIT BOARD ASSEMBLY

SECTION I - USER INFORMATION

1. General

1.1 The 410800 Circuit Board Assembly is a Read Only Memory Board containing a maximum storage of 4K words. Each word is 16 bits wide. The memory portion of the Assembly is organized such that 2K x 16 bit words are addressed at octal address 170000 to 177776 while the remaining 2K x 16 bit words are addressed in any position of the memory map from octal 0 to 170000 by user adjustment of a four position switch located on the assembly.

1.2 The memory array is capable of accepting thirty-two 512 x 4 ROM integrated circuit packages. The array is organized into a 4 row by 8 column matrix. The 2K words residing above octal 170000 are contained in the four columns on right side of the array while the user 2K words reside in the four columns of the left side of the array. See Figure 2.

1.3 A series of circuit board assemblies are planned for each type of system application. The 410800 is the basic board which only contains system ROM. For every specific application for the 2K user area of memory, a new number in the 800 series, i.e. 410801, 410802, is issued.

1.4 The 410800 Circuit Board Assembly contains the Telebus pull-up resistors. Each circuit card on the Telebus drives the bus with an open collector transceiver, thereby requiring a pull-up resistor on a 4108XX type circuit board to generate the bus high level. Only one 4108XX Circuit Card Assembly may be used in each 40C400. When more than 2K of user ROM memory is required in a 40C400, the 4109XX type assembly should be used.

1.5 The board select switch allows 2K x 16 bits of user program to be located on any 2K boundary in the memory map of 32K words. Four individual switches, A through D, within the switch assembly may be set, as indicated in Figure 1, to determine 1-of-16 2K boundaries in the 32K words of memory. A label on the card indicates the decimal or octal switch setting which corresponds to the address of the board.

1.6 The 2K portion of user memory or the 2K portion of system memory need not be fully populated by ROM packs in all applications. That area, however, which is not populated by ROM packs is still active but the output is undefined since the absent pack locations exist within the 2K range of addressing.

2. Supporting Information

2.1 Schematic Diagram 4800SD

SECTION II - CIRCUIT DESCRIPTION

1. General

1.1 This circuit card requires the following power supply voltages:

+5V ±10%
+5V ±10% Standby
+12V ±10%

1.2 The following convention is used in the circuit description to give a unique designation to each circuit in an integrated circuit package.

MLA1-3
- ML - Denotes micrologic
- A1 - Refers to the IC package located at board location A1
- -3 - Refers to the pin number of the IC circuit.

One entire IC gate may also be referred to by its position on the board and its output pin such as MLC5-6.

1.3 The terms "high" and "low" are used in this description to indicate logic voltage levels. High represents any voltage level between 2.4V and 5.5V, and low represents any voltage between 0.0V and 0.4V.

1.4 Signal leads are labeled with a title descriptive of its function.

2. General Description

2.1 The Telebus signals which are required and to which this circuit card assembly responds are the following:

FUNCTION	SYMBOL
16 Data / Address Bidirectional Signals	D/A
3 Control Signals	C0, C1, C2
3 Clocks:	
Bus Enable Clock	Bus En Clk
Memory Clock	Mem Clk
Input/Output Clock	I/O Clk