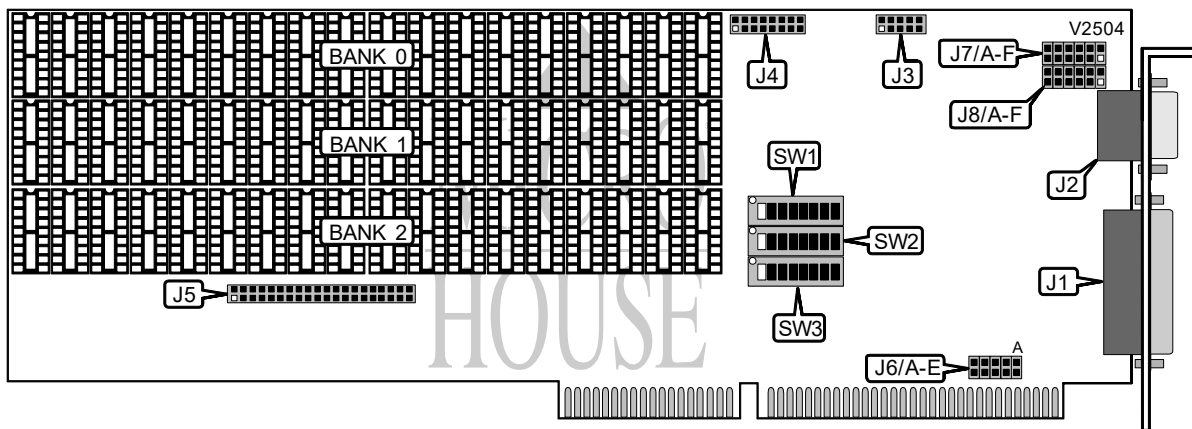


AST RESEARCH, INC.

ADVANTAGE! MEMORY EXPANSION AND I/O BOARD

Card Type	Multi-I/O card
Chip Set	Unidentified
Maximum Onboard Memory	3MB DRAM (with daughter board)
I/O Options	Game port, parallel port, serial ports (2), Advantage-Pak memory card
Data Bus	16-bit ISA
Floppy drives supported	None



CONNECTIONS			
Function	Label	Function	Label
Parallel port	J1	Game port	J4
Serial port 1	J2	Advantage-Pak connector	J5
Serial port 2	J3		

USER CONFIGURABLE SETTINGS			
Function	Label	Position	
Serial port 1 CTS input forced true	J7/A	Closed	
Serial port 1 CTS normal	J7/A	Open	
Serial port 1 CTS normal	J7/B	Closed	
Serial port 1 CTS input forced true	J7/B	Open	
Serial port 1 DSR input forced true	J7/C	Closed	
Serial port 1 DSR normal	J7/C	Open	
Serial port 1 DSR normal	J7/D	Closed	
Serial port 1 DSR input forced true	J7/D	Open	
Serial port 1 DCD input forced true	J7/E	Closed	
Serial port 1 DCD input normal	J7/E	Open	
Serial port 1 DCD normal	J7/F	Closed	
Serial port 1 DCD forced true	J7/F	Open	
Serial port 2 CTS input forced true	J8/A	Closed	
Serial port 2 CTS normal	J8/A	Open	
Serial port 2 CTS normal	J8/B	Closed	
Serial port 2 CTS input forced true	J8/B	Open	
Serial port 2 DSR input forced true	J8/C	Closed	
Serial port 2 DSR normal	J8/C	Open	
Serial port 2 DSR normal	J8/D	Closed	
Serial port 2 DSR input forced true	J8/D	Open	

Continued on next page. . .

AST RESEARCH, INC.

ADVANTAGE! MEMORY EXPANSION AND I/O BOARD

... continued from previous page

USER CONFIGURABLE SETTINGS (CON'T)		
Function	Label	Position
Serial port 2 DCD input forced true	J8/E	Closed
Serial port 2 DCD input normal	J8/E	Open
Serial port 2 DCD normal	J8/F	Closed
Serial port 2 DCD forced true	J8/F	Open
Factory configured - do not alter	SW1/6	N/A
Factory configured - do not alter	SW1/7	N/A
Parity enabled	SW1/8	On
Parity Disabled	SW1/8	Off
Game port enabled	SW2/6	On
Game port disabled	SW2/6	Off
Factory configured - do not alter	SW2/7	N/A
Factory configured - do not alter	SW2/8	N/A
Factory configured - do not alter	SW3/8	N/A

DRAM SWITCH CONFIGURATION										
Bank0	Bank1	Bank2	Bank3	Bank4	Bank5	SW1/1	SW1/2	SW1/3	SW1/4	SW1/5
128KB	None	None	None	None	None	Off	Off	Off	Off	On
512KB	None	None	None	None	None	Off	Off	On	On	On
128KB	128KB	None	None	None	None	Off	Off	Off	On	Off
128KB	512KB	None	None	None	None	On	Off	Off	Off	Off
512KB	512KB	None	None	None	None	Off	On	Off	Off	Off
128KB	128KB	128KB	None	None	None	Off	Off	Off	On	On
128KB	128KB	512KB	None	None	None	On	Off	On	Off	On
128KB	512KB	512KB	None	None	None	On	Off	Off	Off	On
512KB	512KB	512KB	None	None	None	Off	On	Off	Off	On
128KB	128KB	128KB	128KB	None	None	Off	Off	On	Off	Off
128KB	128KB	128KB	512KB	None	None	On	On	Off	Off	On
128KB	512KB	512KB	512KB	None	None	On	Off	Off	On	Off
512KB	512KB	512KB	512KB	None	None	Off	On	Off	On	Off
128KB	128KB	128KB	128KB	128KB	None	Off	Off	On	Off	On
128KB	128KB	128KB	128KB	512KB	None	On	On	On	Off	Off
128KB	128KB	128KB	512KB	512KB	None	On	On	Off	On	Off
128KB	128KB	512KB	512KB	512KB	None	On	Off	On	On	On
128KB	512KB	512KB	512KB	512KB	None	On	Off	Off	On	On
512KB	512KB	512KB	512KB	512KB	None	Off	On	Off	On	On
128KB	128KB	128KB	128KB	128KB	128KB	Off	Off	On	On	Off
128KB	128KB	128KB	128KB	128KB	512KB	On	On	On	On	Off
128KB	128KB	128KB	128KB	512KB	512KB	On	On	On	Off	On
128KB	128KB	128KB	512KB	512KB	512KB	On	On	Off	On	On
128KB	128KB	512KB	512KB	512KB	512KB	On	On	Off	Off	Off
128KB	512KB	512KB	512KB	512KB	512KB	On	Off	On	Off	Off
512KB	512KB	512KB	512KB	512KB	512KB	Off	On	On	Off	Off

Continued on next page. . .

AST RESEARCH, INC.

ADVANTAGE! MEMORY EXPANSION AND I/O BOARD

. . . continued from previous page

SPLIT MEMORY ADDRESSING SELECTION							
Address	SW3/1	SW3/2	SW3/3	SW3/4	SW3/5	SW3/6	SW3/7
256KB AT	On	On	On	On	On	Off	On
512KB AT	On	On	On	On	Off	On	On
512KB AT	On	On	On	Off	On	On	On
612KB AT	On	On	On	Off	On	On	On

SERIAL PORT(S) ADDRESS SWITCH SELECTION (ONE SERIAL PORT)			
Number of Serial ports in AT	SW2/1	SW2/2	SW2/3
0	On	Off	Off
1	Off	On	Off
2	Off	Off	Off

SERIAL PORT(S) ADDRESS SELECTION (TWO SERIAL PORTS)				
Serial port 1 Setting	Serial port 2 Setting	J6/A	J6/B	J6/C
COM1 (3F8h)	Disabled	Open	Open	Closed
COM2 (2F8h)	Disabled	Open	Closed	Open
Disabled	Disabled	Open	Open	Open

SERIAL PORT(S) ADDRESS SWITCH SELECTION (TWO SERIAL PORTS)			
Number of Serial ports in AT	SW2/1	SW2/2	SW2/3
0	On	Off	On
1	Off	On	Off
2	Off	Off	Off

SERIAL PORT(S) ADDRESS SELECTION (ONE SERIAL PORT)				
Serial port 1 Setting	Serial port 2 Setting	J6/A	J6/B	J6/C
COM1 (3F8h)	Disabled	Closed	Open	Closed
COM2 (2F8h)	Disabled	Open	Closed	Open
Disabled	Disabled	Open	Open	Open

Continued on next page. . .

AST RESEARCH, INC. ADVANTAGE! MEMORY EXPANSION AND I/O BOARD

. . . continued from previous page

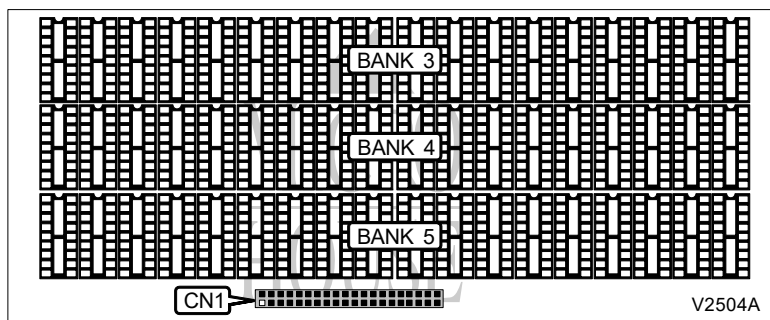
PARALLEL PORT ADDRESS SWITCH SELECTION (COLOR-TYPE DISPLAY CARD)		
Number of Parallel ports in AT	SW2/4	SW2/5
0	On	Off
1	Off	On
2	Off	Off
3	Off	Off

PARALLEL PORT ADDRESS SELECTION (COLOR-TYPE DISPLAY CARD)		
IRQ	J6/D	J6/E
LPT1	Open	Closed
LPT2	Closed	Open
Disabled	Open	Open
Disabled	Open	Open

PARALLEL PORT ADDRESS SWITCH SELECTION (MONOCHROME-TYPE DISPLAY CARD)		
Number of Parallel ports in AT	SW2/4	SW2/5
1	Off	On
2	Off	Off
3	Off	Off

PARALLEL PORT ADDRESS SELECTION (MONOCHROME-TYPE DISPLAY CARD)		
IRQ	J6/D	J6/E
LPT2	Open	Closed
LPT3	Closed	Open
Disabled	Open	Open
Disabled	Open	Open

AST RESEARCH, INC. ADVANTAGE-PAK



CONNECTIONS	
Function	Label
Advantage-Pak connector	CN1

Continued on next page. . .

AST RESEARCH, INC.

ADVANTAGE! MEMORY EXPANSION AND I/O BOARD

. . . continued from previous page

TOTAL DRAM CONFIGURATION						
Size	Bank 0	Bank 1	Bank 2	Bank 3	Bank 4	Bank 5
128KB	(18) 4164	None	None	None	None	None
256KB	(18) 4164	(18) 4164	None	None	None	None
384KB	(18) 4164	(18) 4164	(18) 4164	None	None	None
512KB(A)	(18) 4164	(18) 4164	(18) 4164	(18) 4164	None	None
512KB(B)	(18) 41256	None	None	None	None	None
640KB(A)	(18) 4164	(18) 41256	None	None	None	None
640KB(B)	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 4164	None
768KB(A)	(18) 4164	(18) 4164	(18) 41256	None	None	None
768KB(B)	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 4164
896KB	(18) 4164	(18) 4164	(18) 4164	(18) 41256	None	None
1024KB(A)	(18) 41256	(18) 41256	None	None	None	None
1024KB(B)	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 41256	None
1152KB(A)	(18) 4164	(18) 41256	(18) 41256	None	None	None
1152KB(B)	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 4164	(18) 41256
1536KB	(18) 41256	(18) 41256	(18) 41256	None	None	None
1664KB	(18) 4164	(18) 41256	(18) 41256	(18) 41256	None	None
2048KB	(18) 41256	(18) 41256	(18) 41256	(18) 41256	None	None
2176KB	(18) 4164	(18) 41256	(18) 41256	(18) 41256	(18) 41256	None
2560KB	(18) 41256	(18) 41256	(18) 41256	(18) 41256	(18) 41256	None
2688KB	(18) 4164	(18) 41256	(18) 41256	(18) 41256	(18) 41256	(18) 41256
3072KB	(18) 41256	(18) 41256	(18) 41256	(18) 41256	(18) 41256	(18) 41256

MISCELLANEOUS TECHNICAL NOTE

Note: CN1 is located on the back side of the daughter board.