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Author: Niels Toft

Title:

MBC 601
Multibus Chassis
Technical Manual

RCSL 42-11592

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Keywords: MULTIBUS

Abstract: Multibus Chassis w. 4 slots.

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1. GENERAL DESCRIPTION 1.1

1.1 Chassis 1.1

Made of electroplated steel and aluminium, fitted with two fans and telescope slides. Width = 19", height = 3.5".

1.2 Cardcage SBC 604 1.2

Contains 4 slots for Multibus adapter cards, placed horizontally. The cards can be locked into position. The Multibus backplane has 4 connectors (J2, J3, J4, and J5) connected to the bus-out edge connector. Connector P2 is not fitted. Should be fitted if signal ACLO is wanted.

1.3 Power Supplies 1.3

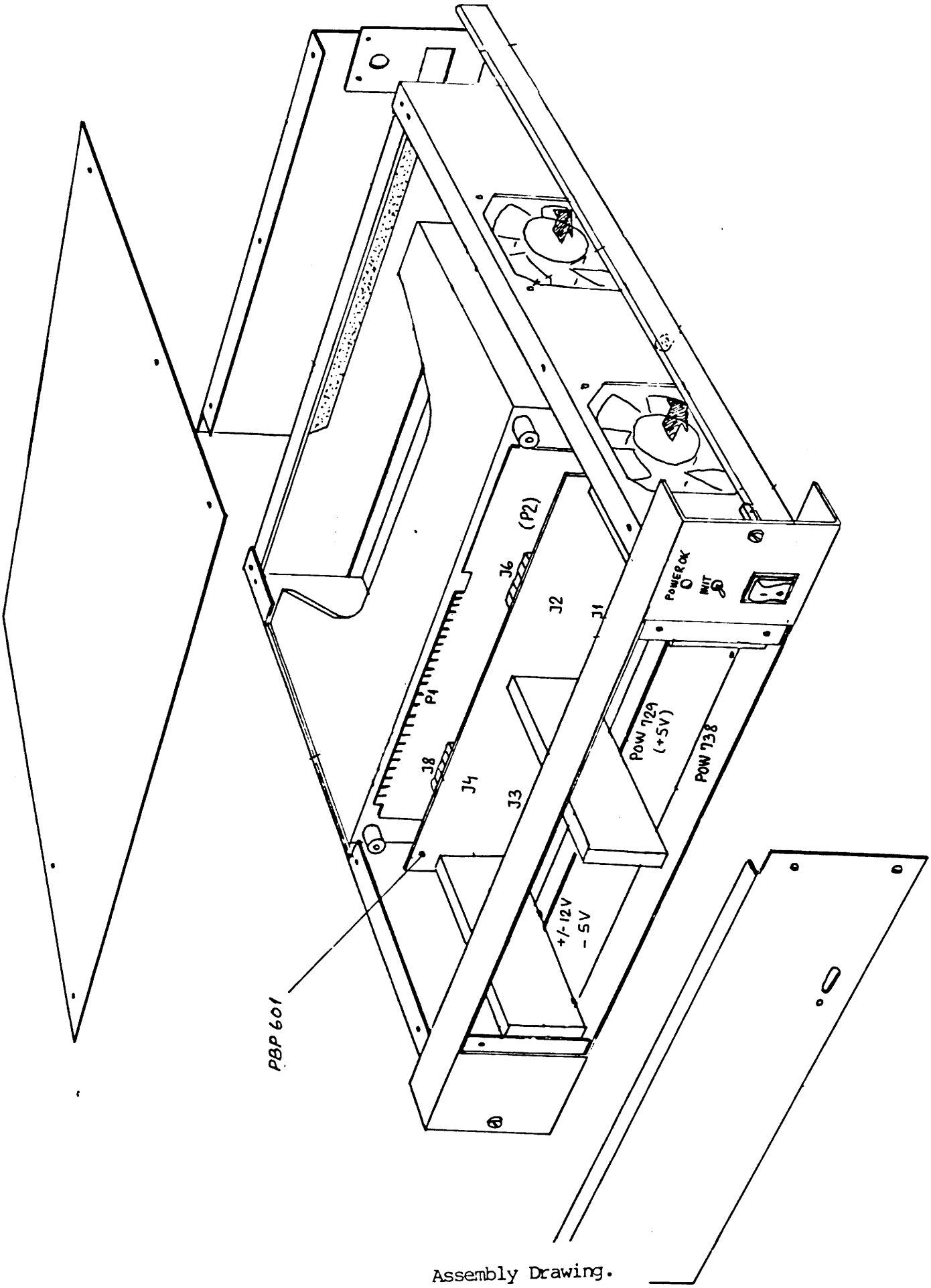
The chassis is fitted with the control module POW738 and one +5V power module POW729 (max. 20A). The +5V module should always be mounted in the top right position.

The two left positions can be used for +/-12V and -5V power modules.

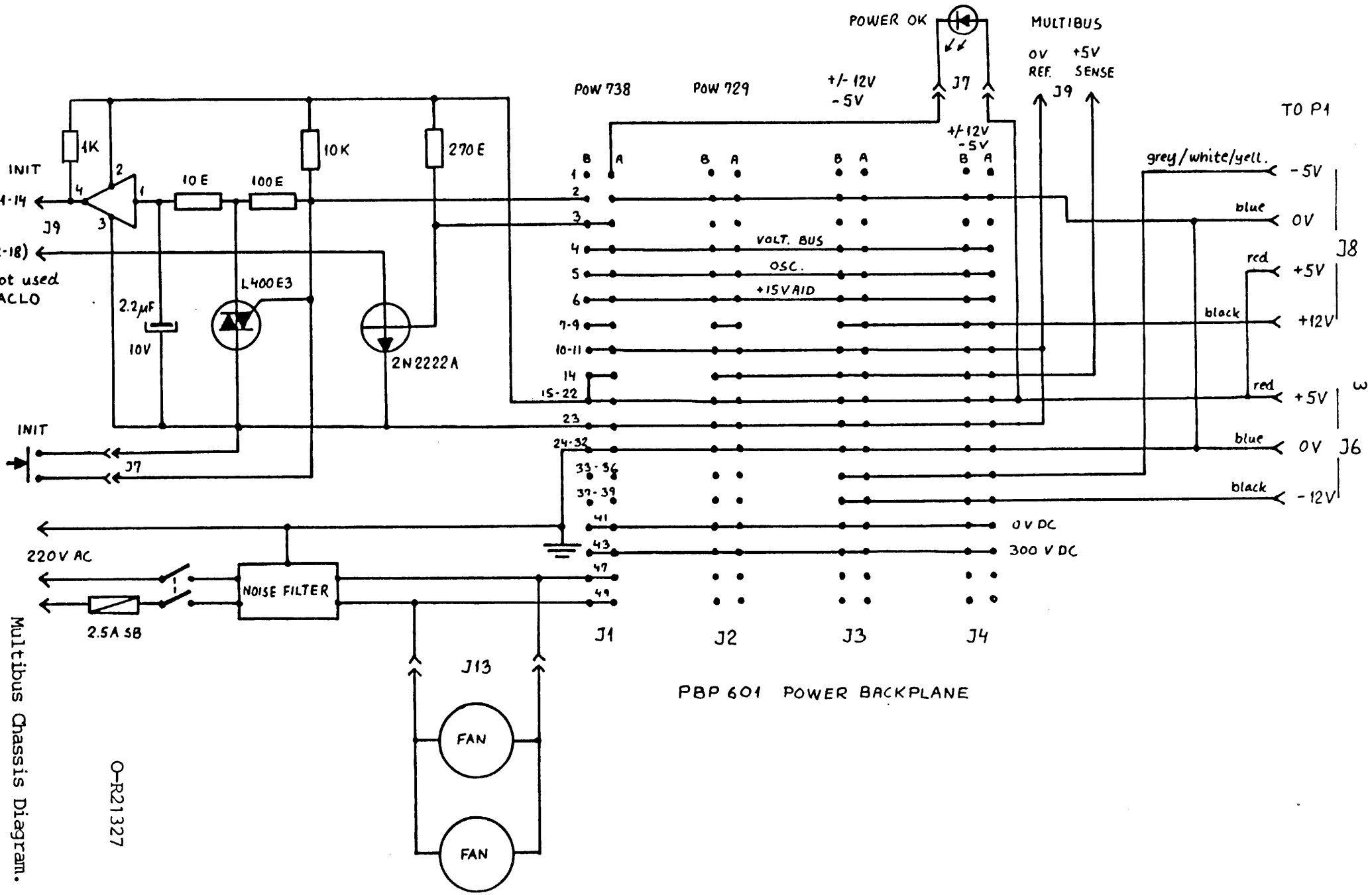
DO NOT WORK ON POWER SUPPLIES WITH POWER ON!

1.4 Switches etc. 1.4

I-O: Mains Switch (Power)
INIT: Reset
LED: Power OK
Voltage Adj., Reset and PINT, see powersupply manual.



Assembly Drawing.


POWER OK
MULTIBUS
0V REF.
+5V SENSE
J9
POW 738
POW 729
+/- 12V
-5V
J7
+/-12V
-5V
TO P1
1K
10K
270E
10E
100E
INIT
P1-14
J9
(P2-18)
not used
ACLO
2.2µF
10V
L400E3
2N2222A
INIT
J7
B A
1
2
3
4 VOLT. BUS
5 OSC.
6 +15VAID
7-9
10-11
14
15-22
23
24-32
33-36
37-39
41 0V DC
43 300V DC
47
49
grey/white/yell. -5V
blue 0V
J8
red +5V
black +12V
red +5V
J5
blue 0V
J6
black -12V
220V AC
NOISE FILTER
2.5A SB
J1
J2
J3
J4
J13
FAN
FAN
PBP 601 POWER BACKPLANE
Multibus Chassis Diagram.
O-R21327

Pin Assignment of Bus Signals on Multibus Board Connector (P1)

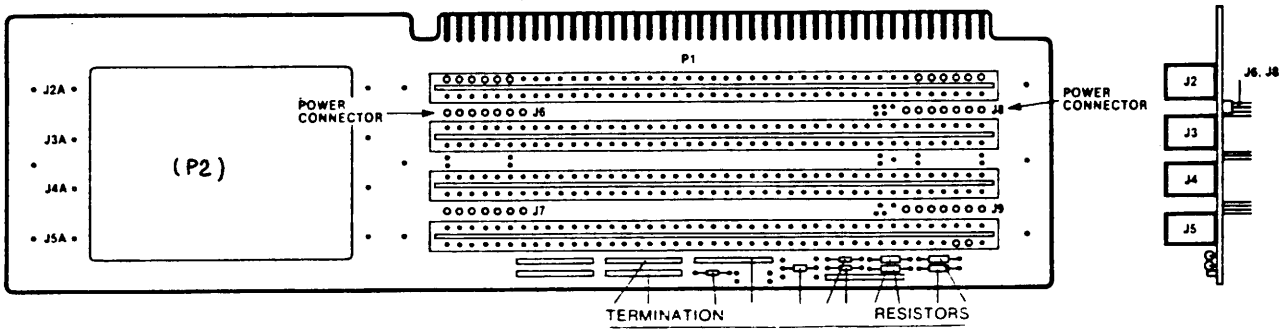
	(COMPONENT SIDE)			(CIRCUIT SIDE)		
	PIN	MNEMONIC	DESCRIPTION	PIN	MNEMONIC	DESCRIPTION
POWER SUPPLIES	1	GND	Signal GND	2	GND	Sig GND
	3	+5V	+ 5Vdc	4	+5V	+ 5Vdc
	5	+5V	+ 5Vdc	6	+ 5V	+ 5Vdc
	7	+12V	+12Vdc	8	+12V	+12Vdc
	9	−5V	− 5Vdc	10	−5V	− 5Vdc
	11	GND	Signal GND	12	GND	Signal GND
BUS CONTROLS	13	BCLK/	Bus Clock	14	INIT/	Initialize
	15	BPRN/	Bus Pri. In	16	BPRO/	Bus Pri. Out
	17	BUSY/	Bus Busy	18	BREQ/	Bus Request
	19	MRDC/	Mem Read Cmd	20	MWTC/	Mem Write Cmd
	21	IORC/	I/O Read Cmd	22	IOWC/	I/O Write Cmd
	23	XACK/	XFER Acknowledge	24	INH1/	Inhibit 1 disable RAM
BUS CONTROLS AND ADDRESS	25		Reserved	26	INH2/	Inhibit 2 disable PROM or ROM
	27	BHEN/	Byte High Enable	28	AD10/	
	29	CBRQ/	Common Bus Request	30	AD11/	Address
	31	CCLK/	Constant Clk	32	AD12/	Bus
	33	INTA/	Intr Acknowledge	34	AD13/	
INTERRUPTS	35	INT6/	Parallel	36	INT7/	Parallel
	37	INT4/	Interrupt	38	INT5/	Interrupt
	39	INT2/	Requests	40	INT3/	Requests
	41	INT0/		42	INT1/	
ADDRESS	43	ADRE/		44	ADRF/	
	45	ADRC/		46	ADRD/	
	47	ADRA/	Address	48	ADRB	Address
	49	ADR8/	Bus	50	ADR9/	Bus
	51	ADR6/		52	ADR7/	
	53	ADR4/		54	ADR5/	
	55	ADR2/		56	ADR3/	
	57	ADR0/		58	ADR1/	
DATA	59	DATE/		60	DATF/	
	61	DATC/		62	DATD/	
	63	DATA/	Data	64	DATB/	Data
	65	DAT8/	Bus	66	DAT9/	Bus
	67	DAT6/		68	DAT7/	
	69	DAT4/		70	DAT5/	
	71	DAT2/		72	DAT3/	
	73	DAT0/		74	DAT1/	
POWER SUPPLIES	75	GND	Signal GND	76	GND	Signal GND
	77		Reserved	78		Reserved
	79	−12V	−12Vdc	80	−12V	−12Vdc
	81	+5V	+ 5Vdc	82	+5V	+ 5Vdc
	83	+5V	+ 5Vdc	84	+5V	+ 5Vdc
	85	GND	Signal GND	86	GND	Signal GND

P2 Connector PIN Assignment of Optional Bus Signals

PIN	(COMPONENT SIDE) MNEMONIC	DESCRIPTION	PIN	(CIRCUIT SIDE) MNEMONIC	DESCRIPTION
1	GND	Signal GND	2	GND	Signal GND
3	5VB	+ 5V Battery	4	GVB	+ 5V Battery
5		Reserved	6	VCCPP	+ 5V Pulsed Power
7	-5VB	- 5V Battery	8	-5VB	- 5V Battery
9		Reserved	10	Reserved	+
11	12VB	+12V Battery	12	12VB	+12V Battery
13	PFSR/	Power Fail Sense Reset	14	Reserved	+
15	-12VB	-12V Battery	16	-12VB	-12V Battery
17	PFSN/	Power Fail Sense	18	ACLO	AC Low
19	PFIN/	Power Fail Interrupt	20	MPRO/	Memory Protect
21	GND	Signal GND	22	GND	Signal GND
23	+15V	+15V	24	+15V	+15V
25	-15V	-15V	26	-15V	-15V
27	PAR1/	Parity 1	28	HALT/	Bus Master HALT
29	PAR2/	Parity 2	30	WAIT/	Bus Master WAIT STATE
31	↑		32	ALE	Bus Master ALE
33	|		34	Reserved	
35	|		36	Reserved	
37	|		38	AUX RESET/	Reset switch
39	|		40	↑	
41	Reserved		42	|	
43	|		44	|	
45	|		46	Reserved	
47	|		48	|	
49	|		50	|	
51	|		52	|	
53	|		54	|	
55	|		56	|	
57	|		58	|	
59	↓		60	↓	

Notes:

1. PFIN, on slave modules, if possible, should have the option of connecting to INT0/ on P1.
2. All undefined pins are reserved for future use.



PARTS LIST

1 PWB TERMINATION BACKPLANE
2 7 POST WAFER CONNECTORS (.156" PIN CENTERS, (J6 AND J8).
4 EDGE BOARD CONNECTORS, 43/86 PINS ON .156" CENTERS (J2-J5)
12 WIRE WRAP POSTS
4 10 PIN, 2.2K, 9 RES, 1.5W RESISTOR PACKS (RP1-RP4).
1 10 PIN, 1K, 9 RES, 1.5W RESISTOR PACK (RP5).
1 10 PIN, 1.1K, 9 RES, 1.5W RESISTOR PACK (RP6).
1 1K RESISTOR 1/8W ±5% (R1).
1 2.2K RESISTOR 1/8W ±5% (R5).
2 220Ω RESISTORS 1/4W ±5% (R9, R11).
2 330Ω RESISTORS 1/4W ±5% (R10, R12).
2 510Ω RESISTORS 1/8W ±5% (R7, R8).

MULTIBUS Backplane

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