

QUICK REFERENCE

JUMPER SETTINGS (* : Initial Setting)

● W1, W15, W15A, W15B, W15C - CPU Setups													
AMD	Type Spec.	W1	W15	W15A	W15B	W15C	INTEL	Type Spec.	W1	W15	W15A	W15B	W15C
486DX2SV (3.3V)	Wr-Th/clk 2x	off	on	1-2	off	1-2	486DX2	5V	on	off	1-2	off	1-2
	Wr-Bk/clk 2x	off	on	2-3	on	2-3		486DX4 (3.3V)	Wr-Th/clk 2x	off	on	1-2	off
486DX4SV (3.3V)	Wr-Th/clk 2x	off	on	1-2	off	1-2	486DX4 (3.3V)	Wr-Bk/clk 2x	off	on	2-3	on	2-3
	Wr-Bk/clk 2x	off	on	2-3	on	2-3		Wr-Th/clk 3x	off	off	1-2	off	1-2
	Wr-Th/clk 3x	off	off	1-2	off	1-2		Wr-Bk/clk 3x	off	off	2-3	on	2-3
	Wr-Bk/clk 3x	off	off	2-3	on	2-3		Wr-Th/clk 4x	off	on	1-2	off	1-2
5x86 or 486DX5 (133/3.3V)	Wr-Th/clk 3x	off	off	1-2	off	1-2	5x86 or 486DX5 (133/3.3V)	Wr-Th/clk 3x	off	off	2-3	on	2-3
	Wr-Bk/clk 3x	off	off	2-3	on	2-3		Wr-Th/clk 4x	off	on	1-2	off	1-2
	Wr-Th/clk 4x	off	on	1-2	off	1-2		Wr-Bk/clk 4x	off	on	2-3	on	2-3

Careful attention should be taken when installing a processor: Faulty jumper settings may damage both your processor and your board

● W2, W3 - HDOUT / EDOUT Signal Distribution (Configure jointly)			
W2: 2.88MB High Density Floppy, HDOUT Signal			
HDOUT left to software *		none	
HDOUT to pin 33 (J2) ; GND to pin 27 (J2)	1-3 ; 2-4		
HDOUT to pin 27 (J2) ; GND to pin 33 (J2)	1-2 ; 3-4		
W3: 2.88MB High Density Floppy, EDOUT Signal			
EDOUT left to software *		none	
EDOUT to pin 29 (J2) ; GND to pin 17 (J2)	1-3 ; 2-4		
EDOUT to pin 17 (J2) ; GND to pin 29 (J2)	1-2 ; 3-4		

● W4, W5 - Feature Connector/V-Port		
(configure jointly)	W4	W5
Feature connector Enabled	off	on
Feature connector disabled *	on	off
V-Port Enabled (CL-GD7548 only)	off	off

● W16 - Supervisor I/O Base Address			
190H *	1-2 ; 3-4	390H	3-4
290H	1-2	390H	none

● W4A, W18 - External CPU Bus Speed			
	W4A	W18	
25MHz	off	3-4	
33MHz *	off	1-2	

● W17 - Extended BIOS Modes		
	on	off *
1-2	Serial Download Mode	Normal Mode
3-4	VT100 Mode	Standard Mode
5-6	Disable TEK. Extension	Enable TEK. Extension
7-8	Disable Onboard VGA	Enable Onboard VGA

● W6, 9, 10, 11, 12 - Serial Port 2 Setup					
(configure jointly)	W6	W9	W10	W11	W12
RS-232 *	off	1-2	1-2	1-2	1-2
RS-422/485	on	2-3	2-3	2-3	2-3

● W19 - BIOS Boot Selection	
Emergency Boot (from EPROM BIOS)	on
Normal Boot (from Flash EPROM BIOS) *	off

● W7, W8 - Serial Port 2 Signal Setup		
(RS-422/485 mode only)	Loopback	Normal *
W7: RTS2-CTS2	on	off
W8: DSR2-DTR2	on	off

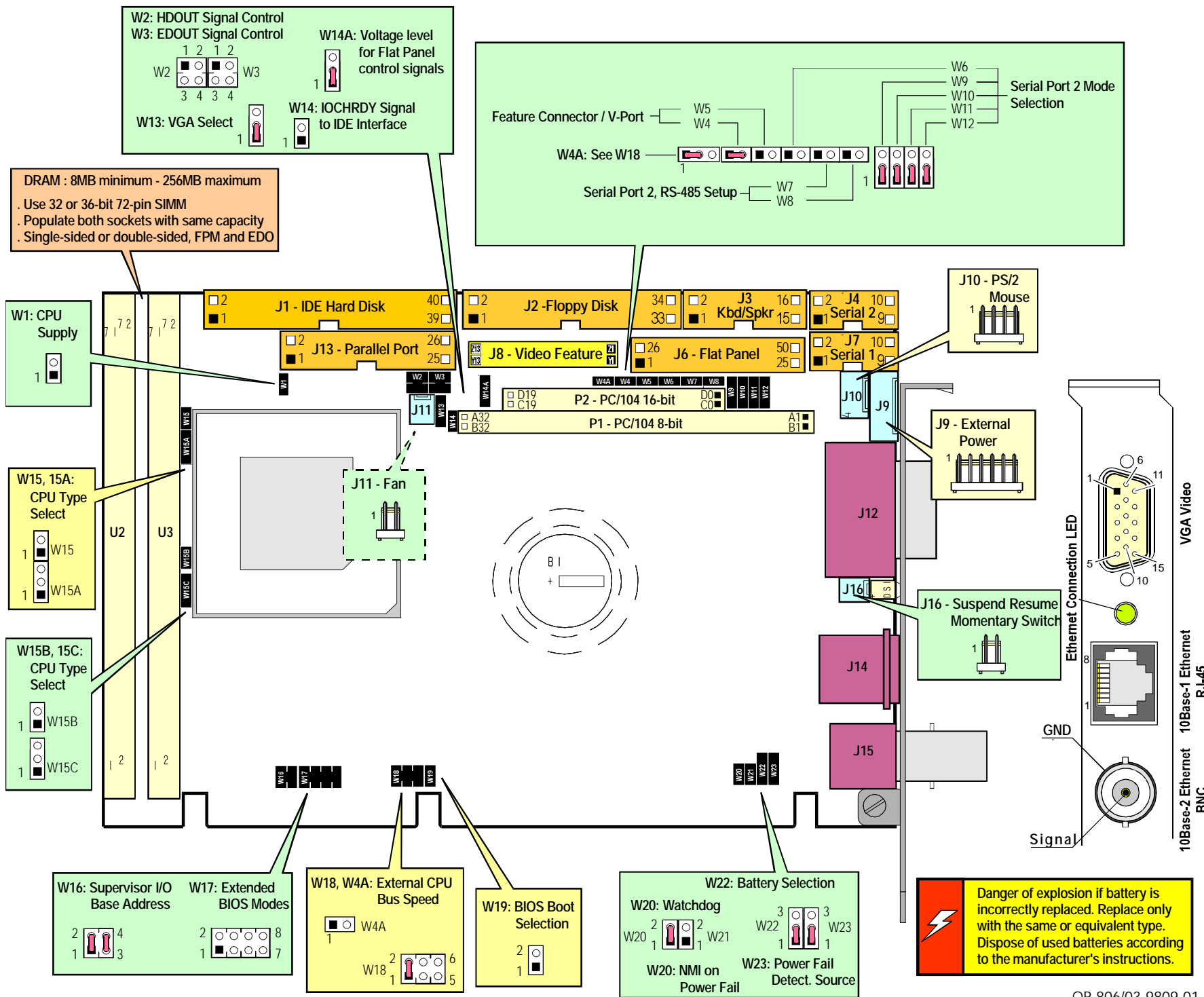
● W20 - Watchdog		● W21 - NMI Setup	
Enabled *	on	On Power Fail	on
Disabled	off	Disabled *	off

● W13 - VGA Select		● W14 - IOCHRDY	
Ready *	1-2	To IDE Interface	on
Local Ready	2-3	Disabled *	off

● W22 - Battery Selection	
Onboard *	1-2
External	2-3

● W14A - Voltage Level for Flat Panel Control		
5V signal level *		1-2
3.3V signal level		2-3

● W23 - Power Fail Detection Source	
External Power Fail Input to pin 6 of J9 *	1-2
Internal/External battery when less than 3V	2-3



Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. Dispose of used batteries according to the manufacturer's instructions.

This jumper does not select flat panel power supply

CONNECTOR PINOUTS

◆ J1 - IDE Hard Disk		* Active Low Signal			
Odd Pin Number		29	N.C.	20	N.C.
1	RESET *	31	IRQ14	28	BALE
3-17	[HD7-HD0]	33 ; 35	SA1 ; SA0	30	GND
19	GND	37	CS0 *	32	IOCS16 *
21	N.C.	39	ACTIVE *	34	N.C.
23	IOW *	Even Pin Number		36	SA2
25	IOR *	2 ; 22-26	GND	38	CS1 *
27	IOCHRDY	4-18	[HD8-HD15]	40	GND

◆ J2 - Floppy Disk		* Active Low Signal			
Odd Pin Number		8	INDEX *	22	WDATA *
1-15; 19-25; 31	GND	10	MOTOR ON 0, 1 *	24	WENABLE *
17; 27; 29; 33	N.C. by default (or see W2/W3 setups)	12	DRIVE SEL. B *	26	TRACK 0 *
		14	DRIVE SEL. A *	28	WPROTECT *
Even Pin Number		16	MOTOR ON 2 *	30	RDATA *
2	DRVEND *	18	DIR CONTROL *	32	HEAD SELECT *
4 ; 6	N.C.	20	STEP *	34	DSKCHG

◆ J3 - Keyboard		* Active Low Signal			
Odd Pin Number		7	SPKR OUT	15	HDACT *
1	KCLK	9	KBDINH	Even Pin Number	
3	KBDATA	11	DOWNLD *	2-4 ; 10-14	GND
5	VCC (+5V)	13	PBRES *	6-8 ; 16	VCC (+5V)

The Technical Reference Manual can be downloaded from the **TEKNOR** Web Site at www.teknor.com.
To order a hard copy of the Technical Reference Manual, contact Customer Service at (450) 437-5682.

◆ J4 - Serial Port 2 (RS-232)					
DCD 2	1	2	DSR 2		
RX 2	3	4	RTS 2		
TX 2	5	6	CTS 2		
DTR 2	7	8	RI 2		
GND	9	10	N.C.		

◆ J6 - Flat Panel		* Active Low Signal			
1-4	FP4-FP7	30, 31	GP0, GP1		
5-8	FP12-FP15	33	FPBL		
9, 10, 11, 12	FP19, 18, 11, 10	35	LLCLK		
13-16	FP23-FP20	36	GND		
17	GND	37	FPVEE		
18	FPVDCLK	38	FPVCC		
19, 21, 25	GND	39	FP2		
20	FP9	40	GP2		
22	LFS	41	STANDBY *		
23	FP3 (MOD)	42, 43	FP16, FP1		
24	FP0	44	FP17		
26	FPDE	45, 46	N.C.		
27, 28, 32, 34	GND	47, 48	VCC (+5V)		
29	FP8	49, 50	+12V		

◆ J4 - Serial Port 2 (RS-422/485)					
DCD 2	1	2	DSR 2		
RX(-)	3	4	RX(+)		
TX(-)	5	6	TX(+)		
DTR 2	7	8	RI 2		
GND	9	10	N.C.		

◆ J7 - Serial Port 1					
DCD 1	1	2	DSR 1		
RX 1	3	4	RTS 1		
TX 1	5	6	CTS 1		
DTR 1	7	8	RI 1		
GND	9	10	N.C.		

◆ J9 - External Power					
1	VCC (+5V)	4	+12V		
2	GND	5	-12V		
3	GND.	6	Pow.Fail		

◆ J11 - CPU Fan					
1	+12V	2	GND		

◆ J8 - Video Feature					
GND	Z1-3	Z13	OVRW *		
FCEVID *	Z4	Y1-8	FCPO-7		
FCESYNC *	Z5	Y9	FCDCCLK		
N.C.	Z6-7	Y10	FCBLANK *		
GND	Z8-9	Y11	FCHSYNCS		
GND	Z10-11	Y12	FCVSYNCS		
FCVCLK	Z12	Y13	GND		

Contact TEKNOR INC. for Technical Support
 1. Tel : (800) 354-4223 3. Internet : www.teknor.com
 2. Fax: (450) 437-8053 4. E-Mail : support@teknor.com

◆ J13 - Parallel Port (Std Mode)					
Odd Pin Number		Even Pin Number			
STROBE *	1	2	AUTOFD *		
[D0-D7]	3-17	4	ERROR *		
ACK *	19	6	INIT *		
BUSY	21	8	SELECTIN*		
PE	23	10-18	Gnd		
SELECT	25	20-26	Gnd		

◆ J14 - 10Base-1 Ethernet					
1	TXD+	5	N.C.		
2	TXD-	6	RXD-		
3	RXD+	7	N.C.		
4	N.C.	8	N.C.		

◆ J15 - 10Base-2 Ethernet					
1	Signal		Shield		

◆ J16 - Susp./Res. Momentary					
1	VCC (+5V)	2	Switch		

◆ P2/P1 - PC/104		* Active Low Signal			
	ROW A	ROW B	ROW C	ROW D	
0			GND	GND	
1	IOCHK*	GND	SBHE*	MEMCS16 *	
2	SD7	RESET DRV	SA23	IOCS16 *	
3	SD6	VCC (+5V)	SA22	IRQ10	
4	SD5	IRQ9	SA21	IRQ11	
5	SD4	-5V	SA20	IRQ12	
6	SD3	DRQ2	SA19	IRQ15	
7	SD2	-12V	SA18	IRQ14	
8	SD1	0WS*	SA17	DACK0 *	
9	SD0	+12V	MEMR *	DRQ0	
10	IOCHRDY	N.C.	MEMW *	DACK5 *	
11	AEN	SMEMW *	SD8	DRQ5	
12	SA19	SMEMR *	SD9	DACK6 *	
13	SA18	IOW *	SD10	DRQ6	
14	SA17	IOR *	SD11	DACK7 *	
15	SA16	DACK3 *	SD12	DRQ7	
16	SA15	DRQ3	SD13	VCC (+5V)	
17	SA14	DACK1 *	SD14	MASTER *	
18	SA13	DRQ1	SD15	GND	
19	SA12	REFRESH *	N.C.	GND	
20	SA11	SYSCCLK			
21	SA10	IRQ7			
22	SA9	IRQ6			
23	SA8	IRQ5			
24	SA7	IRQ4			
25	SA6	IRQ3			
26	SA5	DACK2 *			
27	SA4	T/C			
28	SA3	BALE			
29	SA2	VCC (+5V)			
30	SA1	OSC			
31	SA0	GND			
32	GND	GND			

▶ I/O MAPPING			
000-00F	DMA controller 1	190-197	TEKNOR Control Port (opt.: 290-297 or 390-397)
020-03F	Interrupt Controller 1		
040-043	Counter/Timers	1F0-1F7 ; 3F6-3F7	IDE Hard Disk
060-064	Keyboard (8742)	300-317	Ethernet Port (opt.: 320-337 or 340-357)*
070-071	Real Time Clock	3F0-3F7	Floppy Disk (opt.: 370-377)
080-09F	DMA Page Register	378-37A	Parallel Port (opt.: 3BC-3BE or 278-27A)
0A0-0BF	Interrupt Controller 2	3F8-3FF	COM1 by default (opt.: 2F8-2FF/COM2 or 3E8-3EF/COM3 or 2E8-2EF/COM4)
0C0-0DF	DMA Controller 2		
0EA-0EB	Reserved for TEK-PAK	2F8-2FF	COM2 by default (opt.: 3F8-3FF/COM1 or 3E8-3EF/COM3 or 2E8-2EF/COM4)
024-026	Configuration Registers		
0F0-0FF	Math Coprocessor / Config. Reg.	3C0-3CF ; 3D0-3DF ; 3B0-3BB	Graphics Controller

* Other address ranges: 360-377, 380-397, 3A0-3B7, 3C0-3D7 and 3E0-3F7

▶ MEMORY MAPPING			
00000-9FFFF	0-640KB DRAM	CC000-CFFFF	Flash Window
A0000-BFFFF	Video DRAM	D8000-DFFFF	System DRAM
C0000-C7FFF	Video BIOS	E0000-FFFFF	System BIOS
C8000-CBFFF	TEK. BIOS Exten.		System DRAM

Optional: D4000-D7FFF = TEK. BIOS Exten. ; D0000-D3FFF = Flash Window

Before Powering ON the Board

1. Ensure the power supply connector is connected properly (+5V, +12V, -12V)
2. Make sure all cables are connected to the adequate connector
3. When using a flat panel, make sure the proper video BIOS is installed

First Level Debugging

1. Remove all peripheral boards from the backplane. Only keep the SBC.
2. Remove all cables from the SBC except the video cable
3. Make sure the memory is properly inserted and good working

VIPer806 TECHNICAL SPECIFICATIONS

★ **CPU TYPE & SPEED**
Pentium 5x86 @133MHz ; 486DX4 @100MHz ; 486DX2 @ 66MHz

★ **SYSTEM MEMORY**
DRAM: 1, 2, 4, 8, 16, 16, 32, 48, 64, or 128MB using two 72-pin SIMMs
Cache: 8/16KB internal
Flash EPROM: 0, 2 or 4MB

★ **BUS INTERFACE**
PC/AT bus or stand-alone operation ; 100% IBM PC/AT compatible ; PC/104 compatible

★ **DATA PATH**
32-bit on CPU bus ; 16-bit on ISA bus

★ **VIDEO**
Cirrus Logic GD7543 video processor chip with local bus interface ; 1MB video DRAM
Flat panel supports for monochrome, S/S and D/D STN, EL and TFT displays
SVGA resolutions to 1024x768x256 colors or 1280x1024x16 colors
GUI and video acceleration ; Simultaneous CRT/flat panel support
Video feature connector

★ **I/O**
SMC FDC37C932 Ultra I/O ; PnP compatible
SERIAL : two RS-232 ports, configurable as COM1-4 with RS-485 available on COM2
PARALLEL : 1 bi-directional port (LPT1) with PC/XT, AT, PS/2, EPP and ECP modes
HARD DISK : local bus IDE interface
FLOPPY DISK : interface for two 1.44 or 2.88MB floppy drives

★ **ETHERNET**
10Base-T or 10Base-2 Ethernet option ; PnP compatible ; bus master mode with DMA bursts

★ **BIOS FEATURES**
AMI BIOS in Flash EPROM ; Auto configuration and extended setup
Programmable CPU and memory wait states ; BIOS shadowing in RAM
Extension for diskless, keyboardless and videoless operations ; Power management support
MS-DOS and application bootstrap from Flash EPROM

★ **SUPERVISOR UTILITIES**
Watchdog timer ; Power Failure / low battery detection

★ **POWER SUPPLY**
VOLTAGE : +5V ±5% ; +12V ±5%

	CURRENT		
Proc. Speed	5x86	DX4	DX2
ICC typ.: 5V	1.8A	2.1A	1.5A
ICC Susp.: 5V	0.5A	0.5A	0.7A
I _{PP} : +12V/-12V	5/14mA	5/14mA	5/14mA
Setup	4MB DRAM ; 4MB Flash EPROM ; 1MB Video DRAM		

★ **OPERATING CONDITIONS**
0°C to 70°C with airflow ; R.H. : 5% to 95% ; MTBF : > 40,000 hours (MIL-HDBK-217F)

★ **ELECTRICAL / MECHANICAL**
Board dimensions : 4.8 in. x 7.125 in. (121 mm x 181 mm)
Conforms to IEEE P996 PC/AT bus electrical and mechanical specifications