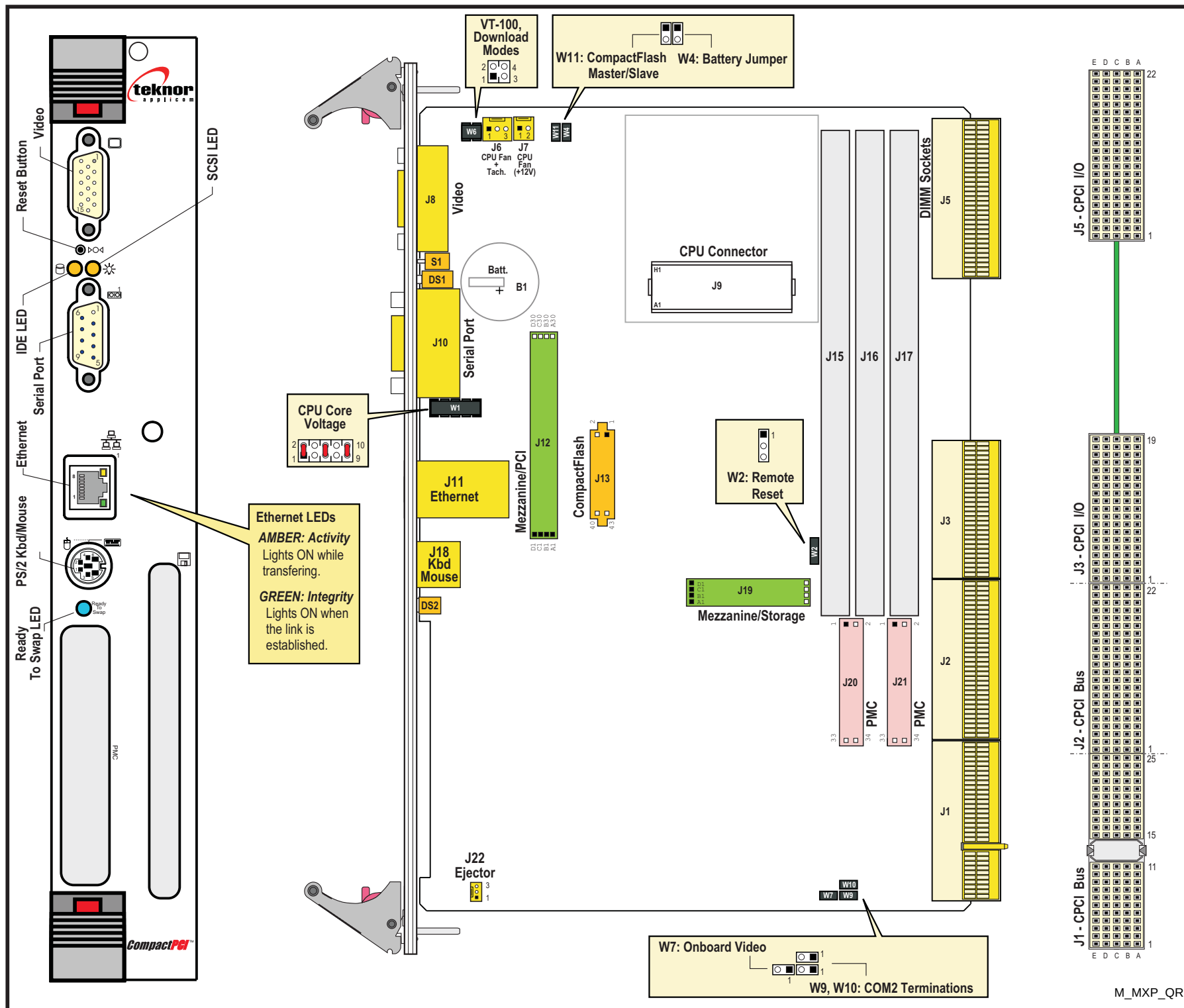




QUICK REFERENCE

JUMPER SETTINGS (* : Default Setting)

● W1 - Pentium II CPU Core Voltage					
(333MHz)	1-2	3-4	5-6	7-8	9-10
1.6V *	on	off	on	off	on

● W2 - Remote Reset	
Through COM1	1-2
Through COM2	2-3
Disabled *	off

● W4 - Onboard Battery	
Connected	on
Disconnected *	off

● W6 - VT100/Download Mode	
VT-100 mode	1-2
Reserved	3-4
Normal mode *	off

● W7 - Onboard Video	
Disabled	on
Enabled *	off

● W9, W10 - COM2 Terminations		
RS-422/485 modes only	W9	W10
With termination resistors	on	on
Without termination resistors *	off	off

● W11 - CompactFlash	
Master	on
Slave *	off

Before Powering ON the Board

1. Ensure the power supply is correctly applied
2. Make sure all cables are connected to the adequate connector

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 working well and is properly inserted.

CONNECTOR PINOUTS

J1 - CompactPCI Bus					
	ROW A	ROW B	ROW C	ROW D	ROW E
1	VCC5	-12V	TRST#	+12V	VCC
2	TCK	VCC	TMS	TDO	TDI
3	INT#	INTB#	INTC#	VCC	INTD#
4	IPMB_PWR	HEALTHY#	VI/O	IRQ14	IRQ15
5	RSV	RSV	RST#	GND	GNT#
6	REQ#	GND	VCC3	CLK	AD31
7	AD30	AD29	AD28	GND	AD27
8	AD26	GND	VI/O	AD25	AD24
9	CBE3#	IDSEL	AD23	GND	AD22
10	AD21	GND	VCC3	AD20	AD19
11	AD18	AD17	AD16	GND	CBE2#
15	VCC3	FRAME#	IRDY#	BD_SEL#	TRDY#
16	DEVSEL#	GND	VI/O	STOP#	LOCK#
17	VCC3	IPMB_SCL	IPMB_SDA	GND	PERR#
18	SERR#	GND	VCC3	PAR	CBE1#
19	VCC3	AD15	AD14	GND	AD13
20	AD12	GND	VI/O	AD11	AD10
21	VCC3	AD9	AD8	M66EN	CBE0#
22	AD7	GND	VCC3	AD6	AD5
23	VCC3	AD4	AD3	VCC	AD2
24	AD1	VCC	VI/O	AD0	ACK64#
25	VCC	REQ64#	ENUM#	VCC3	VCC

J2 - CompactPCI Bus					
	ROW A	ROW B	ROW C	ROW D	ROW E
1	RSV	RSV	RSV	RSV	RSV
2	RSV	RSV	SYSEN#	RSV	RSV
3	RSV	RSV	RSV	RSV	RSV
4	VI/O	RSV	CBE7	GND	CBE6#
5	CBE5#	GND	VI/O	CBE4#	PAR64
6	AD63	AD62	AD61	GND	AD60
7	AD59	GND	VI/O	AD58	AD57
8	AD56	AD55	AD54	GND	AD53
9	AD52	GND	VI/O	AD51	AD50
10	AD49	AD48	AD47	GND	AD46
11	AD45	GND	VI/O	AD44	AD43
12	AD42	AD41	AD40	GND	AD39
13	AD38	GND	VI/O	AD37	AD36
14	AD35	AD34	AD33	GND	AD32
15	RSV	GND	RSV	RSV	RSV
16	RSV	RSV	RSV	GND	RSV
17	RSV	GND	RSV	RSV	RSV
18	RSV	RSV	RSV	GND	RSV
19	RSV	RSV	RSV	RSV	RSV
20	RSV	RSV	RSV	GND	RSV
21	RSV	RSV	RSV	RSV	RSV
22	GA4	GA3	GA2	GA1	GA0

J3 - CompactPCI I/O					
	ROW A	ROW B	ROW C	ROW D	ROW E
1	VP_OUT	ZVPCLK	VP_IN	VACT1	GND
2	GND	VSCL2	GND	VP_SYNC	GND
3	VP5	VCC	VP6	GND	VP7
4	VSDA2	VP3	VP_HSYNC#	VP4	EN_CAM#
5	VPO	GND	VP1	GND	VP2
6	RSV	RSV	RSV	LINKLED 1	SPEEDLED1
7	ACTLED1	SD7	SD6	SD5	SD4
8	GND	VCC	VCC	SD3	SD2
9	ETX+ 1	ETX- 1	ERX+ 1	ERX- 1	GND
10	GND	WR_80#	SD1	+12V	+12V
11	RSV	GND	RSV	RSV	RSV
12	RSV	RSV	RSV	VCC	RSV
13	RSV	VCC	RSV	RSV	RSV
14	RSV	RSV	RSV	GND	RSV
15	I2C_SCL_1	I2C_SDA_1	RSV	SD0	RSV
16	RSV	RSV	RSV	RSV	RSV
17	RSV	IRQ11	IRQ9	RSV	RSV
18	IRQ7	RSV	HD_ACT#	IRRX-2	IRTX-2
19	RSV	EXT_SMI#	PX4_NMI	RSV	PWROK_33

J5 - CompactPCI I/O					
	ROW A	ROW B	ROW C	ROW D	ROW E
1	/BRSTDRV	/BRSTDRV	PDD7	PDD8	PDD6
2	PDD9	PDD5	PDD10	PDD4	PDD11
3	PDD3	PDD12	PDD2	PDD13	PDD1
4	PDD14	PDD0	GND	PDD15	IRQ14
5	PDREQ	PIORDY	/PDIOW	/PDDACK	/PDIOR
6	IO16	GND	/PDIAG	GND	PDA2
7	/PCS1	/PCS3	PDA1	PRI-PD1	/FD-DrvEn0
8	/FD-DrvEn1	/FD-INDEIX	/FD-Mtr0	/FD-DS1	/FD-DS0
9	/FD-MTR1	/FD-DIR	/FD-Step	/FD-WData	/FD-WGate
10	/FD-TRK0	/FD-WrtPrt	/FD-RData	/FD-HDSel	/FD-DkChg
11	/DCCD2	GND	RXD2	/DSR2	TXD2
12	/RTS2	/CTS2	/RI2	+5V	/DTR2
13	/DCCD1	+5V	RXD1	/DSR1	TXD1
14	/RTS1	/CTS1	/RI1	GND	/DTR1
15	SLCT	PE	BUSY	/ACK	PD7
16	PD6	PD5	PD4	PD3	/SLCTIN
17	PD2	/INIT	PD1	/ERR	PD0
18	ALF	USBD1+	USBD1-	GND	USBV0
19	/STB	GND	USBV1	USBD0+	USBD0-
20	+5V	/SMBData	/SMBAlert	GND	SMBClk
21	KBDATA	KBCLK	VCC-KBD	MDATA	MCLK
22	/PBRST	GND	/DIAG-OC	+5V	SPK-Out

J20 - PCI Mezzanine Card (PMC)							
1	N.C.	33	/FRAME	2	-12V	34	GND
3	GND	35	GND	4	/INTA	36	/IRDY
5	/INTB	37	/DEVSEL	6	/INTC	38	VCC
7	/BMode1	39	GND	8	VCC	40	/LOCK
9	/INTD	41	/SDone	10	N.C.	42	/SB0
11	GND	43	PAR	12	N.C.	44	GND
13	PCLK	45	VCC	14	GND	46	AD15
15	GND	47	AD12	16	/GNT	48	AD11
17	/REQ	49	AD9	18	VCC	50	VCC
19	VCC	51	GND	20	AD31	52	/CBE0
21	AD28	53	AD6	22	AD27	54	AD5
23	AD25	55	AD4	24	GND	56	GND
25	GND	57	VCC	26	/CBE3	58	AD3
27	AD22	59	AD2	28	AD21	60	AD1
29	AD19	61	AD0	30	VCC	62	VCC
31	VCC	63	GND	32	AD17	64	N.C.

J21 - PCI Mezzanine Card (PMC)							
1	+12V	33	GND	2	N.C.	34	N.C.
3	N.C.	35	/IRDY	4	N.C.	36	3.3V
5	N.C.	37	GND	6	GND	38	STOP
7	GND	39	/PERR	8	N.C.	40	GND
9	N.C.	41	3.3V	10	N.C.	42	SERR
11	/BMode2	43	/CBE1	12	3.3V	44	GND
13	/PCIRST	45	AD14	14	/BMode3	46	AD13
15	3.3V	47	GND	16	/BMode4	48	AD10
17	N.C.	49	AD8	18	GND	50	3.3V
19	AD30	51	AD7	20	AD29	52	N.C.
21	GND	53	3.3V	22	AD26	54	N.C.
23	AD24	55	N.C.	24	3.3V	56	GND
25	/IDSEL	57	N.C.	26	AD23	58	N.C.
27	3.3V	59	GND	28	AD20	60	N.C.
29	AD18	61	N.C.	30	GND	62	3.3V
31	AD16	63	GND	32	/CBE2	64	N.C.

The Technical Reference Manual can be downloaded from TEKNOR WEB site at www.teknor.com.
To order a hard copy, please contact the Customer Service Department at (450) 437-5682.

MEMORY MAPPING			
00000-9FFFF	0-640KB DRAM	C0000-CBFFF	Video BIOS
A0000-BFFFF	Video DRAM	CC000-DFFFF	System DRAM
E0000-FFFFF		100000 - top	System DRAM

J6 - CPU Fan + Tachometer	
1	Tachometer
2	+12V
3	GND

J7 - CPU Fan	
1	+12V
2	GND

J8 - VGA	
1	RED
2	GREEN
3	BLUE
4 ; 11	N.C.
5; 10	GND
6; 7; 8	A_GND
9	VCC
12	VSDA
13	HSYNC
14	VSYNC
15	VSCL

J10 - COM1	
DCD 1	1
RXD 1	2
TXD 1	3
DTR 1	4
GND	5
6	DSR 1
7	RTS 1
8	CTS 1
9	RI 1

J11 - Ethernet (Front Plate)		
1	TX+	5
2	TX-	6
3	RX+	7
4	N.C.	8
	N.C.	

J13 - CompactFlash	
1-9	D11-D15
11	/CS1
13	/DMACK
15	/DMARQ
17	/PDIAG
19	IRQ
21	VCC
23	GND
25	/RESET
27	CSEL (W3)
29	A1
31	A0
33	D0
35	D1
37	D2
39	/IOCS16
4-12	D3-D7
14	/CS0
16	/IOR
18	/IOW
20	VCC
22	VCC
24	GND
26	GND
28	A2
30	/ASP
32	/IORDY
34	D8
36	D9
38	D10
40	GND

J16 - Keyboard/Mouse		
1	KBDATA	4
2	MDATA	5
3	GND	6
	VCC	
	KBCLK	
	MCLK	

I/O MAPPING			
000-01F	DMA controller 1	278-27A	Parallel Port (opt.)
020-03F	Interrupt Controller 1	290-297	TEK. Ctrlr Port (opt.)
040-05F	Timer	2E8-2EF	COM4
060-06F	Keyboard	2F8-2FF	COM2 (or COM1)
070-07F	Real Time Clock	370-377	Floppy Disk (optional)
080-09F	DMA Page Register	378-37A	Parallel Port (LPT1)
0A0-0BF	Interrupt Controller 2	390-397	TEK. Ctrlr Port (opt.)
0C0-0DF	DMA Controller 2	3BC-3BE	Parallel Port (opt.)
0F0-0FF	Math coprocessor	3E8-3EF	COM3
170-177 ; 376	Secondary IDE	3F0-3F7	Floppy Disk
190-197	TEKNOR Ctrlr. Port	3F8-3FF	COM1 (or COM2)
1F0-1F7 ; 3F6	Primary IDE	3C0-3CF, 3D0-3DF, 3B0-3BB	
		Graphics Controller	

J12 - Mezzanine (PCI)			
	ROW A	ROW B	ROW C
1	5V_KEY	Reserved	+5V
2	VI/O (5V)	AD02	AD01
3	AD05	GND	AD04
4	/C-BE0	AD07	GND
5	GND	AD09	AD08
6	AD11	VI/O (5V)	AD10
7	AD14	AD13	GND
8	+3.3V	/C-BE1	AD15
9	/SERR	GND	/SB0
10	GND	/PERR	+3.3V
11	/STOP	+3.3V	/LOCK
12	+3.3V	/TRDY	GND
13	/FRAME	GND	/IRDY
14	GND	AD16	+3.3V
15	AD18	+3.3V	AD17
16	AD21	AD20	GND
17	+3.3V	AD23	AD22
18	IDSEL0	GND	IDSEL1
19	AD24	/C-BE3	VI/O (5V)
20	GND	AD26	AD25
21	AD29	+5V	AD28
22	+5V	AD30	GND
23	/REQ0	GND	/REQ1
24	GND	/REQ2	+5V
25	/GNT1	VI/O (5V)	/GNT2
26	+5V	CLK0	GND
27	CLK2	+5V	CLK3
28	GND	/INTD	+5V
29	+12V	/INTA	/INTB
30	-12V	Reserved	Reserved

J19 - Mezzanine (Storage)			
	ROW A	ROW B	ROW C
1	VCC	VCC	VCC
2	VCC	VCC	VCC
3	MCLK	MDATA	PDD1
4	KBDAT	KBCLK	PDD3
5	VCC-KBD	GND	PDD5
6	GND	GND	PDD7
7	GND	GND	PDD9
8	GND	GND	PDD11
9	GND	GND	PDD13
10	/FD-DS1	/FD-DRVEN0	PDD15
11	/FD-DRVEN1	/FD-MTR1	/PDIOW
12	/FD-INDEIX	/FD-DS0	PIORDY
13	/FD-DskChg	FDET	IRQ14
14	/FD-MTR0	/FD-DIR	PDA0
15	/FD-STEP	/FD-WDATA	PDA2
16	/FD-GATE	/FD-TRK0	/HD-ACT
17	/FD-WRTPTR	/FD-RDATA	/PCS3
18	/FD-HSEL	+12V	IO16

cPCI-MXP TECHNICAL SPECIFICATIONS

- CPU TYPE & SPEED**
333MHz, Intel Mobile Pentium II processor ; Intel 440BX chipset
- MEMORY**
 - Up to 768MB of SDRAM on three 168-pin DIMMs; 3.3V, 64/72-bit single-sided or double-sided
 - On-die 128KB L2 Cache at full CPU speed
 - Flash Memory: 512KB for BIOS field upgrade
 - EIDE compatible CompactFlash, bootable (on Primary EIDE)

- BUS INTERFACE**
CompactPCI Bus (J1, J2) ; PCI Mezzanine (PMC) ;
TEKNOR mezzanine (PCI and AT bus - FD and EIDE interface) ; SMBus

- DATA PATH**
64-bit on CPU and video ; 32-bit on local PCI bus and CompactPCI bus

- VIDEO**
64-bit AGP video processor (Intel 69000) with 2MB video memory
Up to 1024x768x64K colors or 1280x1024x256 colors CRT only

- I/O**
SERIAL : Four serial ports configurable (COM1-4) with RS-422/485 available on COM3
PARALLEL : 1 bi-directional port (LPT1) with all IEEE 1284 modes supported
HARD DISK : 1 channel PCI EIDE ; drive up to 2 hard disks (including CompactFlash)
FLOPPY DISK : interface for two 1.44 floppy drives through TEKNOR mezzanine

- SCSI**
16-bit Ultra Wide SCSI up to 40MB/s (Adaptec AIC 7880)

- ETHERNET**
Two PCI 10/100MB Ethernet, 10/100Base-TX (Intel 82559)

- PCI-PCI BRIDGE**
Supports up to seven REQ/GNT to drive directly seven CompactPCI slots through
CompactPCI backplanes (DEC 21150)

- FRONT PLATE CONNECTORS**
CRT (15-pin D-Sub) ; serial COM1 (9-pin D-Sub) ; Ethernet (RJ-45 with built-in LEDs) ;

- POWER SUPPLY**
+3.3V ±5% / 2.0A max +5V ±5% / 5.0A max +12V ±5% / 0.75A max

- OPERATING CONDITIONS**
0°C to 60°C (w/airflow) ; R.H. : 5% to 95% @ 40°C ; MTBF : > 95,000 hours (MIL-HDBK-217F)