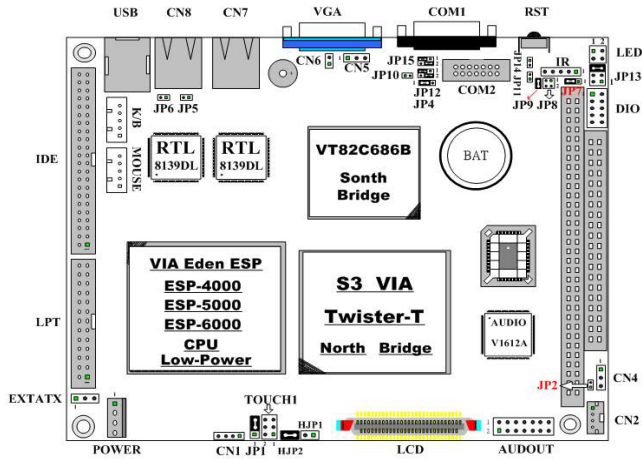


MAT676

Quick Reference Guide

Rev. V2



JP1: LCD Panel Voltage Select		JP2: +5V Inverter Power Select	
1-2 ON	+5V	1-2 ON	+5V
2-3 ON	+3.3V	1-2 OFF	Inverter Suspend Enabled

CN4: LCD BACKLIGHT INVERTER CONNECTOR		
PIN1	PIN2	PIN3
+12V	GND	By JP2

JP3: +12V Support	
1-2 OFF	Default
1-2 ON	External Power can't support +12V

Warning: If your power supply have +12V Support then 1-2 must be OFF.

JP4: BATTERY CMOS CLEAR JUMPER	
1-2 ON	Default
2-3 ON	Clear CMOS

JP5: LAN1 ENABLED OR DISABLED		JP6: LAN2 ENABLED OR DISABLED	
1-2 ON	DISABLED	1-2 ON	DISABLED
1-2 OFF	ENABLED	1-2 OFF	ENABLED

JP7: WDT OUTPUT SELECT
 WatchDog Timer Output for System Reset or IRQ11 Selection. When Jumper 1-2 ON, then output signal of WDT will generate a interrupt signal to IRQ11. Once the system accept the interrupt request, will release a ISR address (CS:E000 IP:0000) for user. User can write some interrupt service routine here, to develop application software.
 1-2 ON: IRQ11. 2-3 ON: SYSTEM RESET.

JP8: 4 BIT DIO PORT ADDRESS SELECT			
ALL OFF	1-2 ON	3-4 ON	ALL ON
320 H	280 H	260 H	240 H

JP9: AT or ATX Power Select	
1-2 ON	AT
1-2 OFF	ATX

JP10: IBM MicroDrive MASTER OR SLAVE SELECT
 1-2 ON: Master 1-2 OFF: SLAVE

JP11: DIO ENABLED OR DISABLED	
1-2 ON	DISABLED
1-2 OFF	ENABLED

JP12: COM1 D-SUB PIN 1, 9 VOLTAGE OR SIGNALSELECT			
1-3 ON	2-4 ON	3-5 ON	4-6 ON
+12V	DCD (Default)	RI (Default)	VCC5V

JP13: COM2 RS-232/422/485 SELECT			
1-2 ON	3-4 ON	5-6 ON	
RS-485	RS-422	RS-232	

JP14: RS-422 ALWAYS ENABLED JUMPER NO RS-485
 PIN1: +5V PIN2: RTSB-

JP15: COM2 D-SUB PIN 1, 9 VOLTAGE OR SIGNALSELECT			
1-3 ON	2-4 ON	3-5 ON	4-6 ON
+12V	DCD (Default)	RI (Default)	VCC5V

CN1: FOR DVI CONNECTOR			
PIN1	PIN2	PIN3	PIN4
SPD1	SPCLK1	GOP0	FPTET

CN2: CD-IN CONNECTOR			
PIN1	PIN2	PIN3	PIN4
CDL	GND	GND	CDR

AUDOUT: AUDIO CONNECTOR							
1	LINR	2	GND	3	GND	4	LINL
5	GND	6	MIN	7	MIN	8	GND
9	LOUTR	10	LOUTL	11	GND	12	PHR
13	PHL	14	GND				

EXTATX: External ATX Power Connector		
PIN1	PIN2	PIN3
GND	POWER ON	ALWAYS +5V

Note: Refer to the diagram on the previous page for the location of PW/ON.
 The MAT-676 can support an advanced soft power switch function if an ATX power supply is used. To enable the soft power switch function:
 1. Take the specially designed ATX-to-PS/2 power cable out of MAT-676's accessory bag.
 2. Connect the 3-pin plug of the cable to EXTATX (ATX feature connector).
 3. Connect the power on/off button to PW/ON. (A momentary type of button should be used).

IR: IR DEFINITION				
PIN1	PIN2	PIN3	PIN4	PIN5
VCC5V	NC	IRRXD	GND	IRTXD

COM1: COM2 RS-232 CONNECTOR								
PIN1	PIN2	PIN3	PIN4	PIN5	PIN6	PIN7	PIN8	PIN9
VCC	SIN	SOUT	DTR	GND	DSR	RTS	CTS	RI/12V

COM2: COM2 RS-232 and RS-422 CONNECTOR								
PIN1	PIN2	PIN3	PIN4	PIN5	PIN6	PIN7	PIN8	PIN9
VCC	DSR	SIN	RTS	SOUT	CTS	DTR	RI/12V	GND
PIN10	PIN11	PIN12	PIN13	PIN14				
NC	RXD/TX+	DCD/TX-	TXD/RX+	DTR/RX-				

DIO: DIGITAL I/O 8 BIT PORT				
PIN1	PIN2	PIN3	PIN4	PIN5
Data bit in 0	Data bit in 1	Data bit in 2	Data bit in 3	Data bit out 0
PIN6	PIN7	PIN8	PIN9	PIN10
Data bit out 1	Data bit out 2	Data bit out 3	GND	VCC

POWER: POWER CONNECTOR			
PIN1	PIN2	PIN3	PIN4
+5V	GND	GND	+12V

LED: 1-2 IDE LED AND 3-4 POWER LED			
PIN1	PIN2	PIN3	PIN4
+5V	HDD LED	+5V	GND

TOUCH1: TOUCH PANEL CONNECTOR					
PIN1	PIN2	PIN3	PIN4	PIN5	PIN6
X+	Y+	X-	Y-	SW	TGND

HJP1/HJP2: SELECT 4WIRE OR 5 WIRE			
	4 WIRE	5 WIRE	
HJP1	1-2 OFF	1-2 OFF	
HJP2	1-2 ON	1-2 OFF	

IDE: IDE CONNECTOR **LPT:** PRINTER
USB: USB1 AND USB2 **FDC:** FDD
KB: KEYBOARD CONNECTOR **MOUSE:** MOUSE CONNECTOR
RST: RESET CONNECTOR **COM1:** D-SUB 9PIN CONNECTOR
VGA: VGA CONNECTOR **CN6:** POWER BOTTOM
CN7: LAN1 CONNECTOR **CN8:** LAN2 CONNECTOR
CF1: CompactFlash I/II or MicroDrive SOCKET

MANUFACTURER DEFAULT JUMPER LIST

J2: PROGRAM CONNECTOR

LVDS1: LVDS CONNECTOR DEFINITION			
PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	VDD	2	VDD
3	GND	4	GND
5	RX0-	6	RX0+
7	GND	8	RX1-
9	RX1+	10	GND
11	RX2-	12	RX2+
13	GND	14	RXCK-
15	RXCK+	16	GND
17	RX3-	18	RX3+
19	GND	20	GND

LCD: LCD CONNECTOR DEFINITION

PIN	ASSIGNMENT	PIN	ASSIGNMENT
1	+12V	2	+12V
3	GND	4	GND
5	ENABLK	6	ENAVEE
7	M(D.0)	8	PD32
9	HSYNC	10	PD30
11	VSYNC	12	PD34
13	GND	14	PD26
15	PD24	16	PD33
17	GND	18	PD25
19	SHFCLK	20	PD11
21	PD6	22	PD14
23	PD19	24	PD16
25	PD22	26	PD21
27	PD18	28	PD9
29	+5V/3.3V (JP1)	30	+5V/3.3V (JP1)
31	PD31	32	PD13
33	PD28	34	PD35
35	PD29	36	PD5
37	PD27	38	PD7
39	PD23	40	PD8
41	PD17	42	PD20
43	PD15	44	PD3
45	PD12	46	PD2
47	PD10	48	PD1
49	PD4	50	PD0

Note: 'Chapter 3' show Data Output PD0 ~ PD35 for different LCD.
TFT LCD OUTPUT DEFAULT IS (SR3D_3=1)
STN LCD OUTPUT DEFAULT IS (SR3D_3=1)

You can set LCD type by BIOS "Advanced Chipset Features" (Panel Type)

Panel Type Select	FUNCTION
[00]	640 X 480 TFT
[01]	800 X 600 TFT
[02]	1024X768 TFT 2pixel/clock at 32MHz
[03]	1280 X 1024 TFT
[04]	640 X 480 DSTN
[05]	800 X 600 DSTN
[06]	1024 X 768 DSTN
[07]	1024X768 TFT 1pixel/clock at 65MHz
[08]	640 X 480 TFT
[09]	800 X 600 TFT
[0A]	1024 X 768 TFT
[0B]	1280 X 1024 TFT
[0C]	1400x1050 TFT 2pixel/clock at 54Mhz
[0D]	800 X 600 DSTN
[0E]	1024 X 768 DSTN
[0F]	1280 X 1024 DSTN

WARNING: The resolution type of LCD and CRT must be the same.
Otherwise, when system reboot, it will show error on
CRT resolution and it need to change setup again.

TN LCD OUTPUT (SR3D 3=0)

Pin Name	STN 8	STN16	STN24	STN 8	DSTN 16	DSTN24	DSTN 16	DSTN 24
PD0	R0	R0	R0	LR0	LR0	LR0		LB3
PD1	G0	G0	G0			LR3		LB2
PD2	B0	B0	B0	LG0	LG0	LG0	LB1	LB1
PD3	R1	R1	R1				LB0	LB0
PD4	G1	G1	G1	LB0	LB0	LB0		UB3
PD5	B1	B1	B1					UB2
PD6	R2	R2	R2	LR1	LR1	LR1	UB1	UB1
PD7	G2	G2	G2			LG3	UB0	UB0
PD8		B2	B2		LG1	LG1		LG3
PD9		R3	R3				LG2	LG2
PD10		G3	G3		LR2	LB1	LG1	LG1
PD11		B3	B3				LG0	LG0
PD12		R4	R4		LG2	LR2		UG3
PD13		G4	G4			LB3	UG2	UG2
PD14		B4	B4			LG2	UG1	UG1
PD15		R5	R5				UG0	UG0
PD16			G5			LB2		LR3
PD17			B5				LR2	LR2
PD18			R6	UR0	UR0	UR0	LR1	LR1
PD19			G6			UR3	LR0	LR0
PD20			B6	UG0	UG0	UG0		UR3
PD21			R7				UR2	UR2
PD22			G7	UB0	UB0	UB0	UR1	UR1
PD23			B7				UR0	UR0
PD24				UR1	UR1	UR1		
PD25						UG3		
PD26					UG1	UG1		
PD27								
PD28					UB1	UB1		
PD29								
PD30					UR2	UR2		
PD31						UB3		
PD32					UG2	UG2		
PD33								
PD34						UB2		
PD35								

TFT LCD DATA OUTPUT (SR3D 3=0)

Pin Name	TFT 9	TFT 2x9	TFT 12	TFT 2x12	TFT 15	TFT 2x15	TFT 18	TFT 2x18	TFT 24	TFT 18	TFT 2x18	TFT 24
PD0							R0	R00	R2		R14	B0
PD1								R10	R0		R15	B1
PD2					R0	R00	R1	R01	R3	B0	B00	B2
PD3						R10		R11		B1	B01	B3
PD4			R0	R00	R1	R01	R2	R02	R4	B2	B02	B4
PD5				R10		R11		R12		B3	B03	B5
PD6	R0	R00	R1	R01	R2	R02	R3	R03	R5	B4	B04	B6
PD7		R10		R11		R12		R13	R1	B5	B05	B7
PD8	R1	R01	R2	R02	R3	R03	R4	R04	R6		R12	G0
PD9		R11		R12		R13		R14			R13	G1
PD10	R2	R02	R3	R03	R4	R04	R5	R05	R7	G0	G00	G2
PD11		R12		R13		R14		R15		G1	G01	G3
PD12							G0	G00	G2	G2	G02	G4
PD13								G10	G0	G3	G03	G5
PD14					G0	G00	G1	G01	G3	G4	G04	G6
PD15						G10		G11		G5	G05	G7
PD16			G0	G00	G1	G01	G2	G02	G4		R10	R0
PD17				G10		G11		G12			R11	R1
PD18	G0	G00	G1	G01	G2	G02	G3	G03	G5	R0	R00	R2
PD19		G10		G11		G12		G13	G1	R1	R01	R3
PD20	G1	G01	G2	G02	G3	G03	G4	G04	G6	R2	R02	R4
PD21		G11		G12		G13		G14		R3	R03	R5
PD22	G2	G02	G3	G03	G4	G04	G5	G05	G7	R4	R04	R6
PD23		G12		G13		G14		G15		R5	R05	R7
PD24							B0	B00	B2		G10	
PD25								B10	B0		G11	
PD26					B0	B00	B1	B01	B3		G12	
PD27						B10		B11			G13	
PD28			B0	B00	B1	B01	B2	B02	B4		G14	
PD29				B10		B11		B12			G15	
PD30	B0	B00	B1	B01	B2	B02	B3	B03	B5		B10	
PD31		B10		B11		B12		B13	B1		B11	
PD32	B1	B01	B2	B02	B3	B03	B4	B04	B6		B12	
PD33		B11		B12		B13		B14			B13	
PD34	B2	B02	B3	B03	B4	B04	B5	B05	B7		B14	
PD35		B12		B13		B14		B15			B15	