

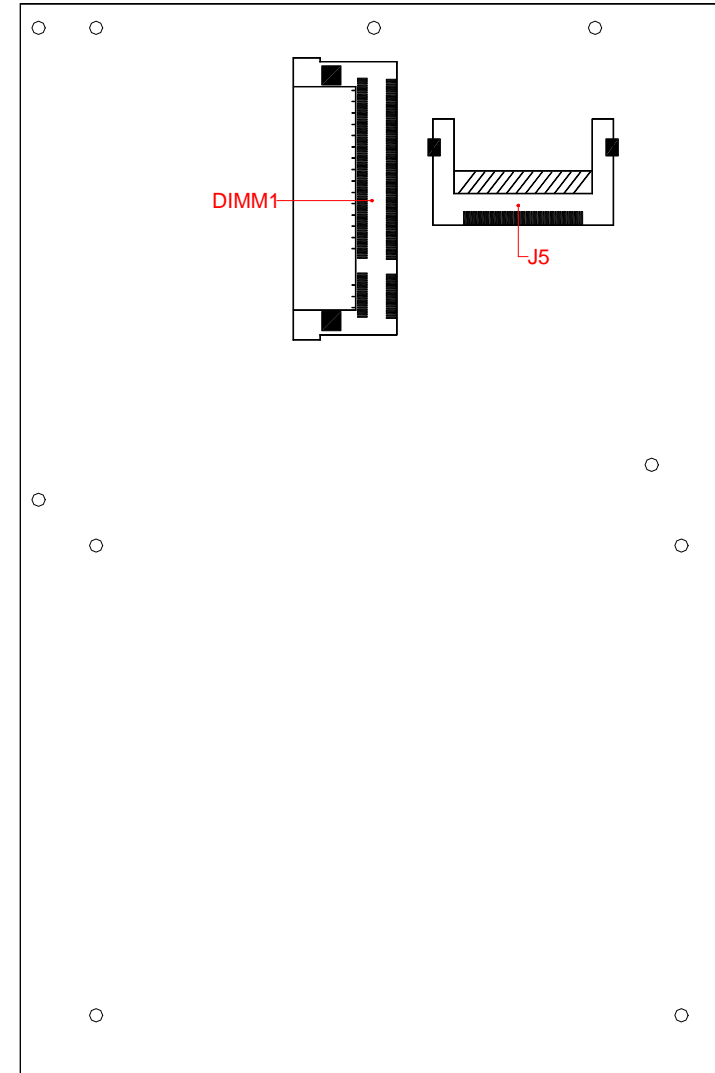
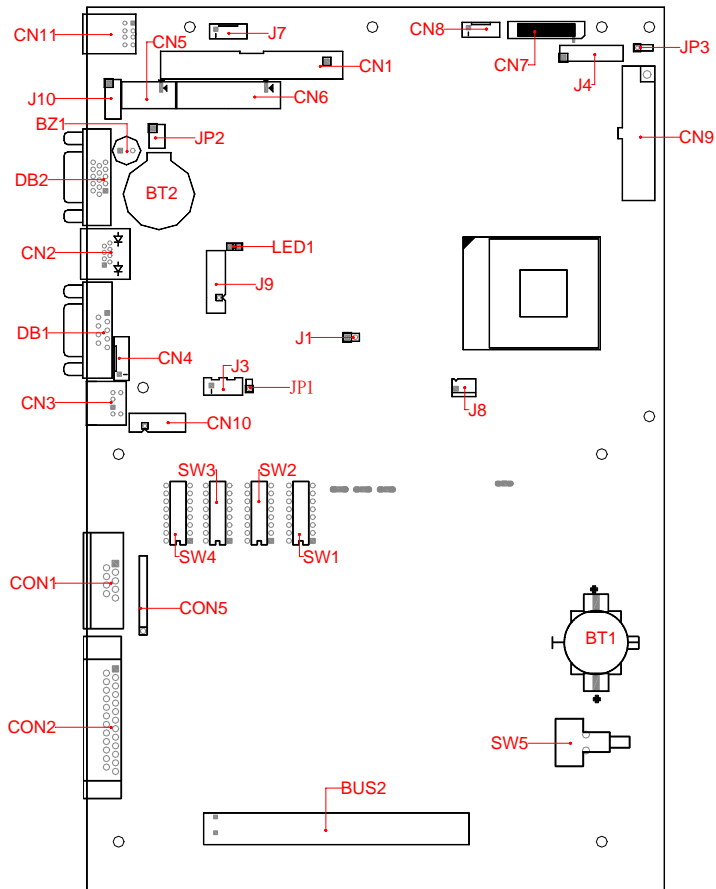
GSE-627 Arcade and Gaming Motherboard User's Quick Setting

(Version 1.0)

1. Introduction

The PCB is a Low power PII or PIII Grade, all in one, half-size CPU card. This user's quick setting provides the jumper and switch settings, connector location, and their pin assignment.

2. Board Placement



3. Packing List

1. GSE-627 Arcade and Gaming all-in-one CPU board.
2. 256 M DDR400 RAM module.
3. CPU: Genuine Intel® Processor 1.3GHZ(100x13.0) , CPU Name: Intel® Celeron® M Processor 1300MHZ.
4. Y-type keyboard and mouse port adapter cable.
5. USB and Audio adapter board with cable.
6. CPU heat sink with cooling fan.
7. Hard copies of this quick setup manual.
8. Serial port and Parallel port interface cable with bracket.

4. Features

A. Motherboard:

- * On-board low power Intel Pentium-M (Optional) or socket for Celeron-M and Pentium-M CPUs
- * Compact size slot card with PICMG PCI expansion bus.
- * Intel 855GME+ICH4 chipset and 512KB or above L2 cache inside the CPUs.
- * Supports 1 SoDIMM socket for up to 1GB DDR-333 RAM.
- * 10/100/1000 base-TX (Giga) Ethernet with RJ-45 connector.
- * Onboard VGA port (855GME embedded) supports CRT and LVDS interface.
- * 1 PCI IDE and 1 CompactFlash socket for 3.3V CompactFlash and MicroDrive.
- * 4 USB (V2.0), 1 parallel, 1 RS-232 and 1 RS-232/422/485 ports.
- * PS/2 compatible keyboard and mouse interface.
- * E2KEY functions for safe CMOS data keeping. (Optional)
- * 4-line TTL I/O, On-board buzzer, and LED indicator.
- * Hardware monitoring functions and 1 CPU cooling fan connector for monitoring.
- * Provides AC97 Audio function and software programmable watchdog timer.
- * Flash BIOS with easy upgrade utility.
- * Compact size, 185 mm x 122 mm.

B. I/O:

- * Both Arcade Game and Gambling Game are available.
- * Input Port: 8pin
- * Output Port: 5pin
- * Wiring Matrix: 5x6
- * Dip Switch: 4(set)x8pin
- * RAM: 256K extendable to 512k
- * ROM: 512K extendable to 8M+32M

C. Programming:

- * This motherboard provides on-line compiler for VC, Turbo C, Delphi, etc. which are coded by assembly language.
- * GAUSS will provide Gcc example.

5. Connectors and Jumpers List

Name	Function	Name	Function
CN1	40-pin IDE Connector (40-pin IDC)	J1	Clear CMOS data Header (J1x2))
CN2	LAN Connector (RJ45 w/LEDs)	J2	n. a.
CN3	KB/Mouse Connector (6-pin mini-Din)	J3	ATX Signals Connector (4-pin JST)
CN4	KB/Mouse Connector (6-pin JST)	J4	Integrated Signals Connector (J2x8)
CN5	COM2 Connector (10-pin IDC)	J5	CompactFlash Socket (50-pin)

CN6	Parallel Port Connector (26-pin IDC)	J6	n. a.
CN7	LVDS Connector (30-pin DF13)	J7	TTL I/O Connector (5-pin JST)
CN8	LCD Power Connector (5-pin JST)	J8	CPU Cooling Fan Connector (3-pin)
CN9	Mini ATX Connector (20-pin)	J9	AC97 Signals Connector (12-pin)
CN10	Audio Connector (J2x5)	J10	USB #3 & #4 Connector (J2x5)
CN11	USB #1 & #2 Connector (USB 2.0)	JP1	PS2/ATX Power Select Jumper (J1x2))
DB1	COM1 Connector (9-pin D-sub)	JP2	COM2 Mode Select Jumper (J2x3)
DB2	CRT Connector (15-pin D-sub)	JP3	WOL Select Jumper (J1x3)
DIMM1	SoDIMM Socket (200-pin)	BUS2	PCI Connector (120-pin)
LED1	On-Board Power/WD LED (Green)	BZ1	On-Board Buzzer

6. Connectors and Their Relative Jumpers

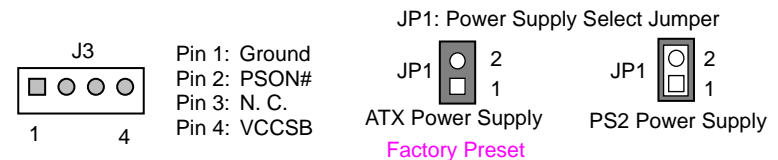
A. Keyboard and Mouse Connectors (CN3 and CN4)

CN3 is a standard PS/2 type keyboard connector and any PS/2 type keyboard can plug into CN3 directly without extra adapter cable. Use the included keyboard+mouse adapter cable (Optional), you can connect keyboard and mouse simultaneously. CN4 is another way to attach keyboard and mouse with optional adapter cable.



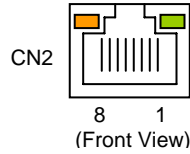
B. Power Connector (CN9), ATX Power Signal Connector and Jumper (J3 and JP1)

CN9 is a standard 20-pin ATX power connector, Please connect pins 15 and 16 of J4 to a push bottom switch for ATX power On/Off controls (Soft start switch).



C. LAN Connector and LED Indicators (CN2)

CN2 is a RJ45 connector with 2 LEDs. The up side LED (orange) indicates data access and the down side LED (green) indicates on-line status. (When light is on indicates on-line and off indicates off-line)



CN2	10/100	Giga	CN2	10/100	Giga
1	TPTX+	MDI0+	5	FBG1	MDI2-
2	TPTX-	MDI0-	6	TPRX-	MDI1-
3	TPRX+	MDI1+	7	FBG2	MDI3+
4	FBG1	MDI2+	8	FBG2	MDI3-

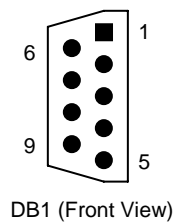
D. Parallel Port Connector (CN6: 26-pin 2.0mm IDC)

The included printer interface cable (optional) is used to transfer 26-pin connector into standard parallel port connector (D-sub 25-pin).

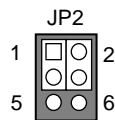
E. Serial Port Connectors & Selector (DB1, CN5, and JP2)

There are 2 connectors and 1 jumper that served for onboard 2 serial ports. The combination and pin definition are listed on the following tables and figure:

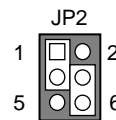
Functional connector, header, and jumper of serial ports	Serial Port 1	Serial Port 2
RS-232 Signals	DB1	CN5
RS-422 Signals	-	CN5
RS-485 Signals	-	CN5
Infra Red Signals	-	J4 (Please refer to 6.P section)
Mode Select	-	JP2



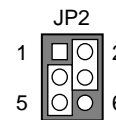
DB1	Signals	CN5	D-sub 9	RS-232	RS-422	RS-485
1	-DCD1	1	1	-DCD2		-
6	-DSR1	2	6	-DSR2		-
2	RXD1	3	2	RXD2	RX-	485-
7	-RTS1	4	7	-RTS2	TX-	-
3	TXD1	5	3	TXD2	RX+	485+
8	-CTS1	6	8	-CTS2	TX+	-
4	-DTR1	7	4	-DTR2		-
9	-RI1	8	9	-RI2		-
5	Ground1	9	5	Ground2		-
Metal	Case Ground	10	Metal	Case Ground		-



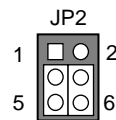
RS-232
Factory Preset



RS-485
(Half Duplex)



RS-422
(Full Duplex)



Reserved

F. IDE Hard Disk Connector (CN1 - 40-pin 2.54mm IDC)

Use the included 40-pin hard disk cable (optional), you can attach up to two 3.5" hard disk drives.

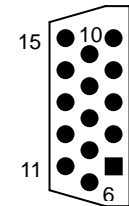
G. SoDIMM Socket (DIMM1)

DIMM1 (Located on the solder side) supports 200-pin, 2.5V, and DDR-333 DRAM modules with size of 128MB, 256MB, 512MB, and 1GB.

H. CompactFlash Socket (J5)

The CompactFlash socket J5 (Located on the solder side) supports 3.3V CompactFlash and MicroDrive. Its default setting is secondary master port.

I. CRT Connector (DB2)



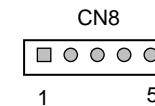
DB2 (Front View)

- Pin 1: Red
- Pin 2: Green
- Pin 3: Blue
- Pin 13: Hsync
- Pin 14: Vsync
- Pin 12: DDC Data
- Pin 15: DDC Clock
- Pin 5 & 10: Digital Ground
- Pin 6,7,8: Analog Ground
- Others: Not Used

J. LCD Connectors (CN7 and CN8)

CN7 supports 36-bit LVDS LCD signals, and CN8 is the power connector for inverter board.

CN7	Signal	CN7	Signal
1	Ground	2	Y0+
3	Y0-	4	Ground
5	Y1+	6	Y1-
7	Ground	8	Y2+
9	Y2-	10	Ground
11	YCK+	12	YCK-
13	Ground	14	Z0+
15	Z0-	16	Ground
17	Z1+	18	Z1-
19	Ground	20	Z2+
21	Z2-	22	Ground
23	ZCK+	24	ZCK-
25	Ground	26	Ground
27	+3.3V	28	+3.3V
29	+5V	30	+5V



- Pin 1: +12V
- Pin 2: Ground
- Pin 3: ENVDD
- Pin 4: N.C.
- Pin 5: +5V

GSE-627 Arcade and Gaming Motherboard User's Quick Setting

(Version 1.0)

K. USB Connectors and Jumpers (CN11 and J10)

J10	Signal	J10	Signal
1	USB3V+	2	USB4V+
3	USBD3-	4	USBD4-
5	USBD3+	6	USBD4+
7	Ground	8	Ground
9	Case Ground	10	Case Ground

L. AC97 Connector (J9: 12-pin 2.0mm IDC, optional)

J9	Signal	J9	Signal
1	AC97_CLK	2	+12V
3	+5V	4	AC97_SYNC
5	Ground	6	Ground
7	N. C.	8	AC97_RST#
9	AC97_SDO	10	AC97_SDI2
11	AC97_SDI0	12	AC97_SDI1

J9 provides AC97 signals for Audio function. Use FB4641x (Audio adapter board, Optional) and cable for your Audio applications.

M. Audio Connector (CN10: 10-pin 2.0mm IDC)

CN10	Signal	CN10	Signal
1	Line Out - L	2	Line In - L
3	Line Out -R	4	Line In - R
5	Ground	6	N. C.
7	N. C.	8	MIC In
9	N. C.	10	Ground

N. TTL I/O Connector (J7: 5-pin 2.0mm JST)

J7	TTL Lines	Bit Location
1	Output Line 0	Please refer to User's Manual for details.
2	Output Line 1	
3	Input Line 0	
4	Input Line 1	
5	Ground	-

O. Cooling Fan Connector(J8)

J8 is 3-pin Molex connector which is used to drive CPU cooling fan for FB6613.

Pin1: Ground
Pin2: +12V
Pin3: Fan Speed

P. Multi-Function Header (J4)

J4	Signal	J4	Signal
1	Power LED+	2	Power LED-
3	HDD LED+	4	HDD LED-
5	LAN LED+	6	LAN LED-
7	Temperature Sensor+	8	Temperature Sensor-
9	IRTX	10	IRRX
11	Ground	12	Ground
13	Reset+	14	Reset-
15	Soft Start SW+	16	Soft Start SW-

Q. Clear CMOS Data (J1)

J1 is used to clear CMOS data by closing its 2-pin for about 3 seconds.

R. Wake On LAN (WOL) Select (JP3)

WOL Enabled (pins 1 and 2 shorted)
WOL Disabled (pins 2 and 3 shorted)
Factory Preset (pins 1 and 3 shorted)

S. CON5 [I/O(A)]

Pin1	Pin2	Pin3	Pin4	Pin5	Pin6	Pin7	Pin8	Pin9	Pin10
Record	Key in	Key out	Coin	Alarm	GND	Coin Counter	Key out Counter	Key in Counter	+12V

GSE-627 Arcade and Gaming Motherboard User's Quick Setting

(Version 1.0)

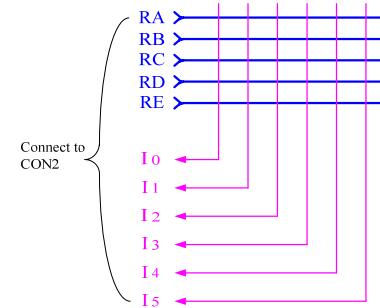
T. CON1 [Input]

9-Pin Male				
GND	5	GND	5 Ground	POWER
PROTECT	9	PROTECT	9 Alarm (for key in & key out)	in 0
CLOSE	4	CLOSE	4 Shut off screen	in 1
RECORD	8	RECORD	8 Record	in 2
TEST	3	TEST	3 Test	in 3
CLEAR	7	CLEAR	7 Clear record	in 4
H.P. SW	2	HP.SW	2 Coin out switch	in 5
KEYOUT	6	KEYOUT	6 Key out	in 6
KEYIN	1	KEYIN	1 Key in	in 7

U. CON2 [I/O(B)]

25-Pin Female			
RA	1	1,14,2,15,3,16, 4,17,5,18,6	*External Wiring(Matrix)
RB	14		
RC	2		
RD	15		
RE	3		
I0	16		
I1	4		
I2	17		
I3	5		
I4	18		
I5	6		
KEYIN COUNTER	19		Out 0 (open collector)
KEYOUT COUNTER	7		Out 1 (open collector)
COIN COUNTER	2		Out 2 (open collector)
PAYOUT COUNTER	8		Out 3 (open collector)
SSR / IN USE LAMP	21		Out 4 (open collector)
COIN	9		
+3V	22		
+5V	10		
+3V	23		
+3V	11		
+12V	24		
+12V	12		
GND	25		
GND	13		
		22,10,23,11,24, 12,25,13	Power Output

*External Wiring(Matrix) Diagram :



V. SW5 [Hardware Reset]

Switch it when power is OFF to clear Arcade Game record.

W. BT1 [Battery 3V]

CR2032

X. SW1 · SW2 · SW3 · SW4 [Dip Switch]

On line Game IP set