

Wide Operating  
Temperature



# EasyBoard-841E

## 3.5" Compact Board

### Quick Installation Guide

Version 1.1

#### Form Factor

**3.5" Compact Board**

#### CPU

**Soldered onboard Intel®  
Core™ 2 Duo L7500  
1.6GHz Processor**

#### Chipset

**Intel® GME965  
Intel® ICH8M**

#### Video

**Dual Channels 24-bit  
LVDS/ Analog RGB**

#### LAN

**2 x Realtek 8111 PCIe  
Gigabit Ethernet**

#### Audio

**Realtek ALC888 HD  
Audio Codec, 7.1 channel,  
Line-in/out, Mic-in**

#### I/O

**CF II/ Mini PCI/ SATA II/  
USB 2.0/ IDE/ COM/ LPT/  
FDD / DIO**

## ◆ Technical Support

If you have any technical difficulties, please consult the user's manual first at:  
<ftp://ftp.arbor.com.tw/pub/manual>

Please do not hesitate to call or e-mail our customer service when you still can not find out the answer.

<http://www.arbor.com.tw>

E-mail: [info@arbor.com.tw](mailto:info@arbor.com.tw)

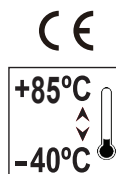
### Declaration of Conformity

FCC Class A

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Copyright® 2012 All Rights Reserved.

4041965101110P



## Packing List

Before you begin installing your single board, please make sure that the following materials have been shipped:



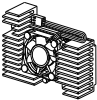
1 x EasyBoard-841E 3.5" Compact Board



1 x Driver CD



1 x Quick Installation Guide



1 x CPU Cooler  
90 x 66 x 27.8mm (L x W x H)



1 x ATX Power cable  
ATX main power connector (2x10 pins) to EasyBoard-841E power connector (2x5 pins)

If any of the above items is damaged or missing, contact your vendor immediately.

## Ordering Information

EasyBoard-841E/L7500	EasyBoard-841E 3.5" Compact Board w/ dual LAN
CBK-09-9651-00 (P/N: 6910996510000P)	Cable Kit 1 x COM Port Cable 1 x IDE Cable 2 x SATA Cable 1 x Audio Cable 1 x KB & MS Cable 2 x USB Cable 1 x Parallel Port Cable 1 x LPT to FDD Cable 1 x LAN Cable

---

## Find Device Drivers on CD

### Windows 2000 & XP

Device	Driver Path
Chipset	\CHIPSET\INF 9.11
LAN	\ETHERNET\REALTEK\8111_WINXP_5764
VGA	\GRAPHICS\INTEL_2K_XP_32\1437 \GRAPHICS\INTEL_2K_XP_64\1437
Audio	\AUDIO\REALTEK_HD\WIN2K_XP_X86X64_R252

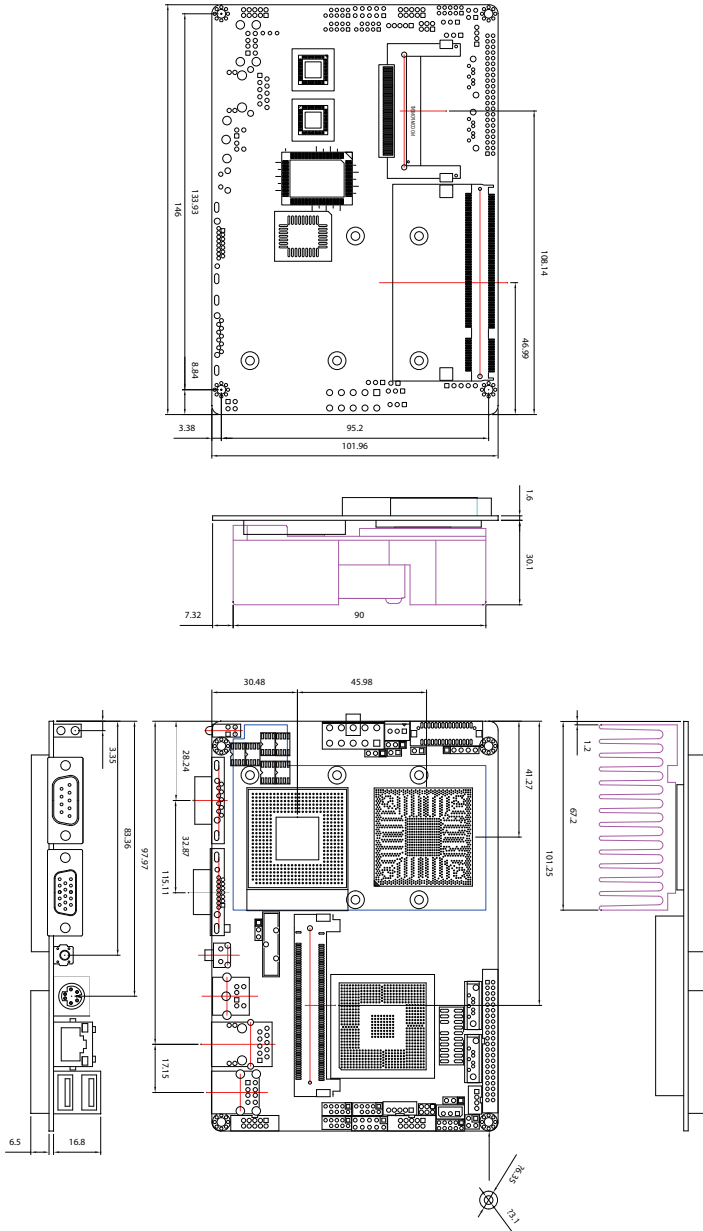
### Windows 7

Device	Driver Path
Chipset	\CHIPSET\INF 9.1.1.1004
LAN	Windows 7 built-in LAN driver
VGA	\GRAPHICS\INTEL_WIN7_32\1930 \GRAPHICS\INTEL_WIN7_64\1930
Audio	\AUDIO\REALTEK_HD\WIN7_R252

## Specifications

Form Factor	3.5" Compact Board
CPU	Soldered onboard Intel® Core™ 2 Duo L7500 Processor up to 800MHz FSB
Chipset	Intel® GME965 + Intel® ICH8M
System Memory	1 x 200-pin SO-DIMM socket Up to 2GB DDR2 533/667MHz SDRAM
VGA/ LCD Controller	Mobile Intel® Graphics Media Accelerator (GMA) X3100 graphics core w/ Analog RGB/ LVDS 24-bit dual Channels
Ethernet	2 x Realtek 8111 PCIe Gigabit Ethernet Controllers
I/O Chips	Winbond W83627HG
BIOS	AMI PnP Flash BIOS
Audio	Realtek ALC888 HD Audio Codec, MIC-in/Line-In/Line-Out
Serial ATA	2 x Serial ATA ports with 300MB/s HDD transfer rate
IDE Interface	1 x IDE (Ultra ATA 33), support 2 IDE devices
Serial Port	2 x COM ports (COM1: RS-232, COM2: RS-232/422/485)
Parallel Port/ FDD	1 x LPT Port (SPP/EPP/ECP mode selectable) 1 x Floppy connector share with LPT port
IrDA	1 x IrDA connector
KBMS	Standard PS/2 Keyboard and Mouse via Y-cable
Universal Serial Bus	6 x USB 2.0 ports
DIO	8-bit programmable Digital Input/Output
Expansion Interface	1 x CF II Socket (Share with IDE) 1 x Mini PCI Socket
Operation Temp.	-40°C ~ 85°C (-40°F ~ 185°F)
Watchdog Timer	255-level Reset
Dimension (L x W)	146 x 102 mm ( 5.7" x 4.0" )

# Board Dimensions



Unit:mm

---

## Jumpers/ Connectors Quick Reference

### Jumpers

Label	Function
JP1, JP3	COM Port Power Special Support
JRS1	COM2 RS-232 / 422 / 485 Selection
JPWR1	AT/ATX Power Mode Selection
JVLCD1	LCD Voltage Selection
JP2	Compact Flash Selection
JBAT1	Clear CMOS Setting

### Switch

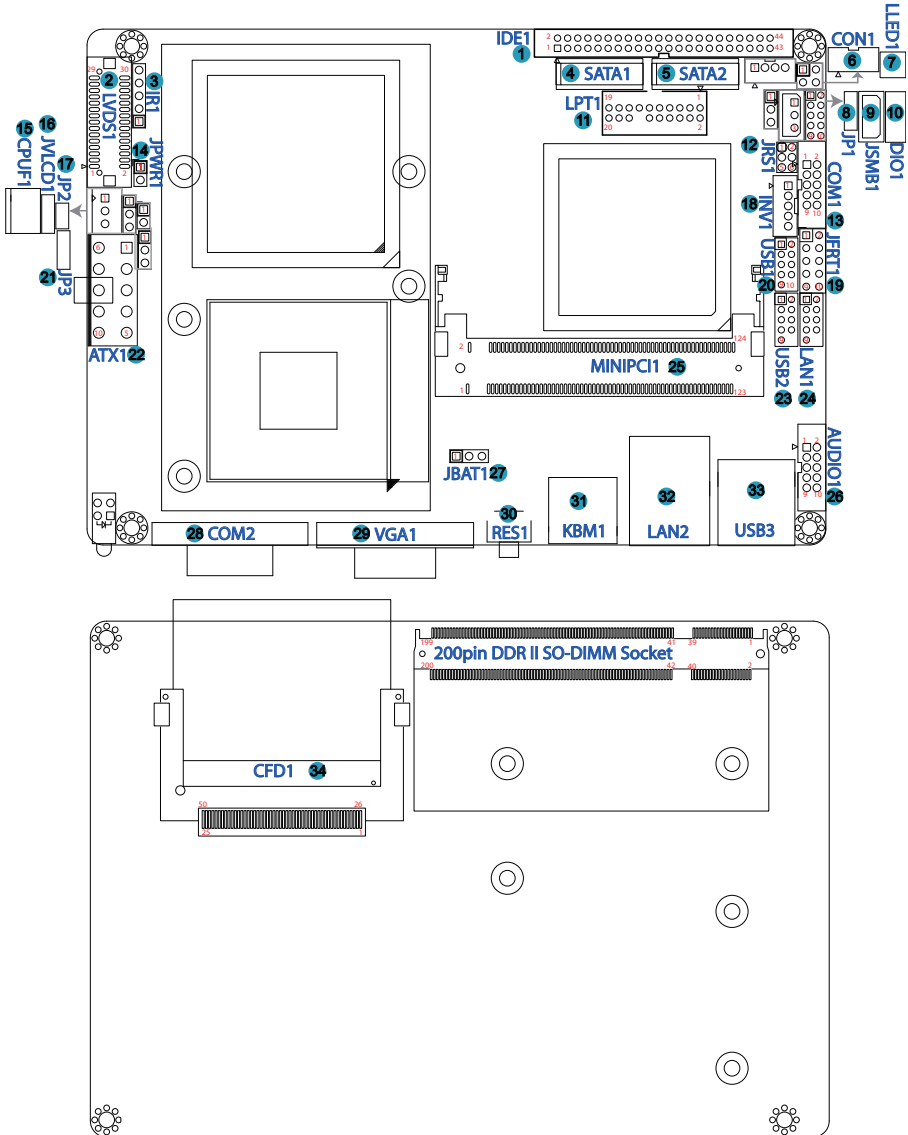
Label	Function
RES1	Reset Switch

### Connectors

Label	Function
IDE1	IDE Connector
LVDS1	LVDS LCD Connector
IR1	Infrared Connector
SATA1, SATA2	Serial ATA Connectors
CON1	RS-422/485 Output Connector
LLED1	LAN LED Indicator
JSMB1	External SMBus Connector
DIO1	Digital I/O Connector
LPT1	Parallel Port or FDD Connector
COM1	RS-232 Connector

CPUF1	Fan Power Connector
INV1	LCD Inverter Connector
JFRT1	Switches and Indicators
USB1, USB2	USB Port Connectors
ATX1	ATX Power Supply Connector
LAN1	GbE Connector
MINIP- CI1	MiniPCI Socket
AUDIO1	Audio Connector
COM2	RS-232/422/485 Connector
VGA1	Analog RGB Connector
KBM1	Keyboard & Mouse Connector
LAN2	GbE RJ-45 Connector
USB3	USB Double Stacks Connector
CFD1	Compact Flash Socket

# Jumpers & Connectors Location



## Jumpers

### JP1, JP3: COM Port Power Special Support (8),(21)

Connector type: 2.54mm pitch 1x3-pin headers

Pin	Mode	
1-2	Standard signal for Pin-9 (Default)	
2-3	+12V	

### JRS1: COM2 RS-232/422/485 Selection (12)

Connector type: 2.00mm pitch 2x3-pin headers

Mode	RS-232 (Default)	RS-422	RS-485
1-2	Short	Open	Open
3-4	Open	Short	Open
5-6	Open	Open	Short

### JPWR1: AT/ATX Power Mode Selection (14)

Connector type: 2.54mm pitch 1x2-pin headers

Pin	Mode	
Short	AT mode	
Open	ATX Mode (Default)	

### JVLCD1: LCD Panel Voltage Selection (16)

The voltage of LCD panel could be selected by JVLCD1 in +5V or +3.3V.

Connector type: 2.54mm pitch 1x3-pin headers

Pin	Voltage	
1-2	+5V	
2-3	+3.3V (Default)	

### JP2: Compact Flash Selection (17)

Connector type: 2.54mm pitch 1x2 pin header.

Pin	Mode	
Short	Master	
Open	Slave (Default)	

### JBAT1: Clear CMOS Setting (27)

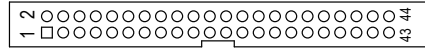
Connector type: 2.54mm pitch 1x3-pin headers

Pin	Mode	
1-2	Keep CMOS (Default)	
2-3	Clear CMOS	

## Connectors

### IDE1: Primary IDE Connector (1)

Connector type: 2.00mm pitch 2x22-pin box headers



Pin	Description	Pin	Description
1	IDE RESET	2	GND
3	DATA7	4	DATA8
5	DATA6	6	DATA9
7	DATA5	8	DATA10
9	DATA4	10	DATA11
11	DATA3	12	DATA12
13	DATA2	14	DATA13
15	DATA1	16	DATA14
17	DATA0	18	DATA15
19	GND	20	N/C
21	REQ	22	GND
23	IO WRITE	24	GND
25	IO READ	26	GND
27	IO READY	28	IDSEL
29	DACK	30	GND
31	IRQ14	32	N/C
33	ADAD1	34	ATA66 DETECT
35	ADAD0	36	ADAD2
37	CS#1	38	CS#3
39	IDEACT	40	GND
41	+5V	42	+5V
43	GND	44	N/C

### LVDS1: LVDS LCD Connector (2)

Connector type: DF-13-30DP-1.25V connector and supports 24-bit dual channels

Pin	Desc.	Pin	Desc.
2	VDD	1	VDD
4	TX2CLK+	3	TX1CLK+
6	TX2CLK-	5	TX1CLK-
8	GND	7	GND
10	TX2D0+	9	TX1D0+
12	TX2D0-	11	TX1D0-
14	GND	13	GND
16	TX2D1+	15	TX1D1+
18	TX2D1-	17	TX1D1-
20	GND	19	GND
22	TX2D2+	21	TX1D2+
24	TX2D2-	23	TX1D2-
26	GND	25	GND
28	TX2D3+	27	TX1D3+
30	TX2D3-	29	TX1D3-





### IR1: Infrared Connector (3)

Connector type: 2.54mm pitch 1x5-pin headers

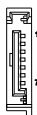
Pin	Description
1	+5V
2	N/C
3	IRRX
4	GND
5	IRTX



### SATA1~2: Serial ATA Connectors (4,5)

High speed transfer rates (300MB/s).

Pin	Description
1	GND
2	TX+
3	TX-
4	GND
5	RX-
6	RX+
7	GND



### CON1: RS-422/485 Output Connector (6)

Connector type: 2.00mm pitch 1x4-pin box wafer connector

Pin	RS-422	RS-485
1	TX+	DATA+
2	TX-	DATA-
3	RX+	N/C
4	RX-	N/C



### LLED1: LAN1 LED Indicator (7)

Connector type: 2.54mm pitch 2x2-pin headers

Pin	Description	Pin	Description
1	LED_Y-	2	LED_Y+
3	LED_G-	4	LED_G+



### SMBUS1: External SMBUS Connector (9)

Connector type: 2.54mm pitch 1x3-pin box wafer connector.

Pin	Description
1	Data
2	Clock
3	GND



### DIO1: Digital I/O Connector (10)

DIO1 is a 8-bit DIO connector w/ Onboard 10-pin header connector, supports 4-bit In/ 4-bit Out.

Connector type: 2.00 mm pitch 2x5-pin headers

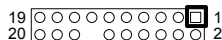
Pin	Description	Pin	Description
1	DIO1	2	DIO2
3	DIO3	4	DIO4
5	DIO5	6	DIO6
7	DIO7	8	DIO8
9	+5V	10	GND



### LPT1: Parallel Port or FDD Connector (11)

Connector type: 2.00 mm pitch 2x10-pin headers.

It can be selected by LPT or FDD mode via BIOS.



Pin	Description	Pin	Description
1	STROBE#	2	AFD#
3	PTD0	4	Error#
5	PTD1	6	INIT#
7	PTD2	8	SLIN#
9	PTD3	10	GND
11	PTD4	12	GND
13	PTD5	14	N/C (Key)
15	PTD6	16	Busy
17	PTD7	18	PE
19	ACK#	20	Select

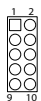
Parallel port connector is shared with FDD.

Pin	Description	Pin	Description
1	N/C	2	RWC#
3	RINDEX#	4	HEAD#
5	TRACK0#	6	DIR#
7	WP#	8	STEP#
9	RDATA#	10	GND
11	DSKCHG#	12	GND
13	N/C	14	N/C (Key)
15	N/C	16	MOB#
17	N/C	18	WD#
19	DSB#	20	WE#

### COM1: RS-232 Connector (13)

Connector type: 2.00mm pitch 2x5-pin headers

Pin	Desc.	Pin	Desc.
1	DCD#	2	RXD
3	TXD	4	DTR#
5	GND	6	DSR#
7	RTS#	8	CTS#
9	RI#	10	N/C



### CPUF1: Fan Power Connector (15)

CPUF1 is a 3-pin headers for the CPU fan. The fan must be a +12V fan.

Pin	Description
1	GND
2	+12V
3	FAN_Detect



### INV1: LCD Inverter Connector (18)

Connector type: 2.00mm pitch 1x5-pin box wafer connector.

Pin	Description
1	+12V
2	GND
3	Backlight on/off
4	Brightness control
5	GND

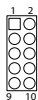


### JFRT1: Switches and Indicators (19)

It provides connectors for system indicators that provides light indication of the computer activities and switches to change the computer status.

Connector type: 2.54mm pitch 2x5pin headers

Pin	Description	Pin	Description
1	RESET+	2	RESET-
3	POWER_LED+	4	POWER_LED-
5	HDD_LED+	6	HDD_LED-
7	SPEAKER+	8	SPEAKER-
9	PSON+	10	PSON-



### USB1~2: USB Connectors (20,23)

Connector type: 2.00mm pitch 2x5-pin headers

Pin	Desc.	Pin	Desc.
1	+5V	2	+5V
3	USBD-	4	USBD-
5	USBD+	6	USBD+
7	GND	8	GND
9	GND	10	N/C (Key)



### ATX1: ATX Power Supply Connector (22)

Pin	Description	Pin	Description
6	5VSB	1	PS-ON
7	+5V	2	GND
8	+5V	3	GND
9	-12V	4	+12V
10	GND	5	+3.3V



### LAN1: GbE Connector (24)

Connector type: 2.00mm pitch 2x5-pin headers

Pin	Desc.	Pin	Desc.
1	TX_MDI0+	2	TX_MDI0-
3	RX_MDI1+	4	MDI2+
5	MDI2-	6	RX_MDI1-
7	MDI3+	8	MDI3-
9	N/C	10	N/C (Key)



### MINIPCI1 : MiniPCI Socket (25)



### AUDIO1: Audio Connector (26)

Connector type: 2.00mm pitch 2x5-pin headers

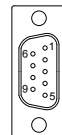
Pin	Description	Pin	Description
1	Line Left In	2	Line Right In
3	GND	4	GND
5	MIC1	6	MIC2
7	GND	8	GND
9	Line-out Left	10	Line-out Right



### COM2: RS-232/422/485 Connector (28)

Connector type: D-Sub 9-pin male connector

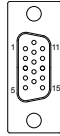
Pin	Desc.	Pin	Desc.
6	DSR#	1	DCD#
7	RTS#	2	RXD
8	CTS#	3	TXD
9	RI#	4	DTR#
		5	GND



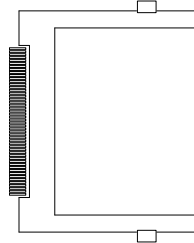
### VGA1: Analog RGB Connector (29)

Connector type: D-Sub 15-pin female connector

Pin	Desc.	Pin	Desc.
1	RED	9	N/C
2	GREEN	10	GND
3	BLUE	11	N/C
4	N/C	12	D-DATA
5	GND	13	H-SYNC
6	GND	14	V-SYNC
7	GND	15	D-DCLK
8	GND		



### CFD1 : Compact Flash Disk socket (share with IDE1) (34)



### RES1 : Reset Switch (30)

### KBM1: Keyboard & Mouse (31)

Mini-Din Keyboard & Mouse connector

Connector type: 6-pin mini DIN.

Pin	Description
1	KB Data
2	MS Data
3	GND
4	+5V
5	KB Clock
6	MS Clock



Pin	Description	Pin	Description
1	GND	26	CF_Detect
2	PDD3	27	PDD11
3	PDD4	28	PDD12
4	PDD5	29	PDD13
5	PDD6	30	PDD14
6	PDD7	31	PDD15
7	PDCS1#	32	PDCS3#
8	GND	33	N/C
9	GND	34	PDIOR#
10	GND	35	PDIOW#
11	GND	36	+5V
12	GND	37	PIDEIRQ
13	+5V	38	+5V
14	GND	39	CSEL#
15	GND	40	N/C
16	GND	41	IDERST#
17	GND	42	PIORDY
18	PDA2	43	PDDREQ
19	PDA1	44	PDDACK#
20	PDA0	45	HD_LED1#
21	PDD0	46	PDIAG#
22	PDD1	47	PDD8
23	PDD2	48	PDD9
24	N/C	49	PDD10
25	N/C	50	GND

### LAN2: GbE RJ-45 Connector (32)

LAN2 supports 10/100/1000 Mbps Fast Ethernet

Connector type: RJ-45



### USB3: Double Stack USB type A Connector (33)

Connector type: double stack USB type A connector.



Note:

1. CF Socket supports up to 4GB.
2. CF Socket does not support Hot Swap.
3. CF and ATA channel are alternative.

---

This page is intentionally left blank.