

EPM-1534 Series

Single LVDS to 4 LVDS daughter board

Quick Installation Guide

1st Ed – 12 March 2008

To receive the latest version of the user's manual; please visit our Web site at: <http://www.avalue.com.tw>

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Part No. E2017153400R

1. Getting Started

1.1 Safety Precautions

Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

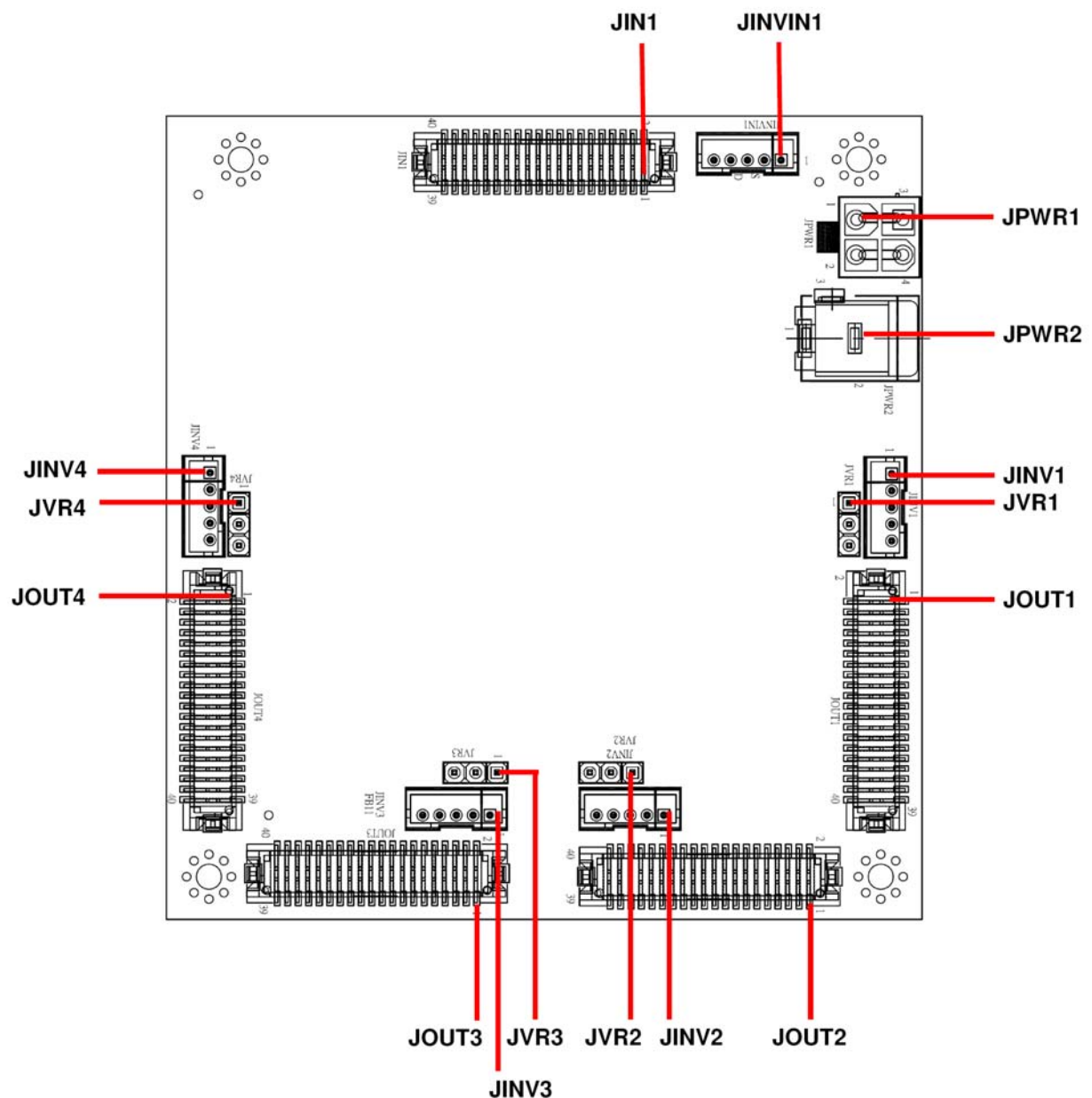
1.2 Packing List

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

- 1 x EPM-1534 series single LVDS to 4 LVDS daughter board
- 1 x Quick Installation Guide for EPM-1534
- 1 x LVDS cable (HIROSE DF13-40DS-1.25V)
- 1 x Inverter power cable(5-pin, 2.0mm)

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

2. Hardware Configuration



2.1 Current Limitations

Please notice that there are limitations of output current.

Max current output: 5V@8A , 3.3V@7A

2.2 Jumper and Connector List

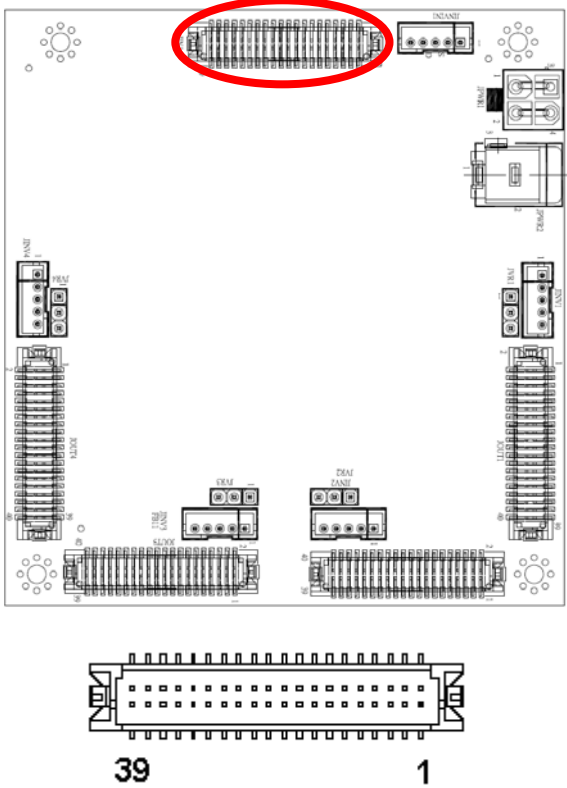
The following tables list the function of each of the board's connectors.

Connectors

Label	Function	Note
JIN1	LVDS input connector	HIROSE DF13-40DP-1.25V
JINVIN1	LVDS inverter connector	5 x 1 wafer, pitch 2.0mm
JINV1	LVDS inverter connector 1	5 x 1 wafer, pitch 2.0mm
JINV2	LVDS inverter connector 2	5 x 1 wafer, pitch 2.0mm
JINV3	LVDS inverter connector 3	5 x 1 wafer, pitch 2.0mm
JINV4	LVDS inverter connector 4	5 x 1 wafer, pitch 2.0mm
JOUT1	LVDS output connector 1	HIROSE DF13-40DP-1.25V
JOUT2	LVDS output connector 2	HIROSE DF13-40DP-1.25V
JOUT3	LVDS output connector 3	HIROSE DF13-40DP-1.25V
JOUT4	LVDS output connector 4	HIROSE DF13-40DP-1.25V
JPWR1	Power connector	Wafer box 4P, 4.2mm
JPWR2	Power connector	DC-Jack 3P 90D
JVR1	LCD backlight brightness adjustment 1	3x1 header, pitch 2.54mm
JVR2	LCD backlight brightness adjustment 2	3x1 header, pitch 2.54mm
JVR3	LCD backlight brightness adjustment 3	3x1 header, pitch 2.54mm
JVR4	LCD backlight brightness adjustment 4	3x1 header, pitch 2.54mm

2.3 Setting Jumpers & Connectors

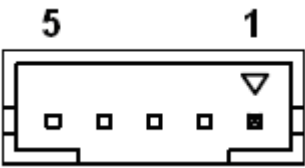
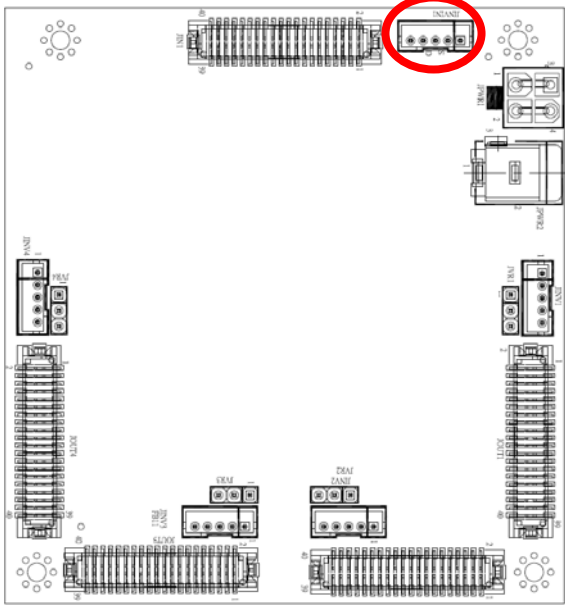
2.3.1 LVDS Input Connector (JIN1)



Signal	PIN	PIN	Signal
+5V	2	1	+3.3V
+5V	4	3	+3.3V
NC	6	5	NC
GND	8	7	GND
Txout0	10	9	Txout1
Txout0#	12	11	Txout1#
GND	14	13	GND
Txout2	16	15	Txout3
Txout2#	18	17	Txout3#
GND	20	19	GND
Txout4	22	21	Txout5
Txout4#	24	23	Txout5#
GND	26	25	GND
Txout6	28	27	Txout7
Txout6#	30	29	Txout7#
GND	32	31	GND
Txclk	34	33	Txclk1
Txclk#	36	35	Txclk1#
GND	38	37	GND
NC	40	39	NC

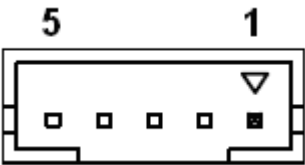
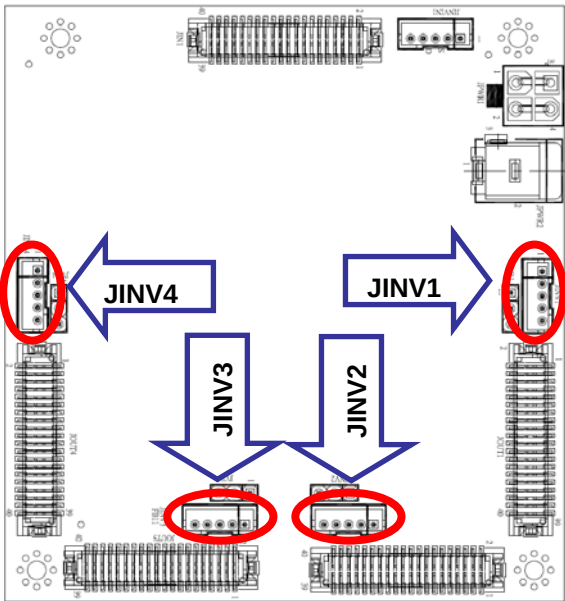
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2.3.2 LVDS inverter connector (JINVIN1)



Signal	PIN
NC	1
GND	2
ENBKL	3
NC	4
NC	5

2.3.3 LCD Inverter Connector (JINV1,JINV2,JINV3,JINV4)



Signal	PIN
+12V	1
GND	2
ENBKL	3
VR	4
+5V	5



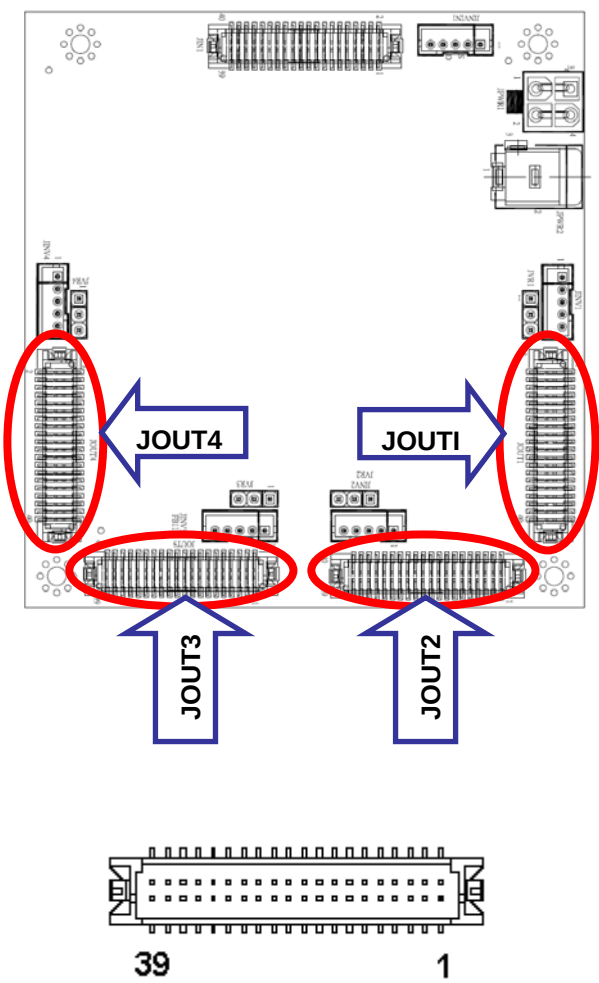
Note:

For inverters with adjustable Backlight function, it is possible to control the LCD brightness through the VR signal controlled by **JVR1, JVR2, JVR3, JVR4**. Please see the JVR section for detailed circuitry information.

2.3.3.1 Signal Description – LCD Inverter Connector (JINV1,JINV2,JINV3,JINV4)

Signal	Signal Description
VR	Vadj = 0.75V ~ 4.25V (Recommended: 4.7KΩ, >1/16W)
ENBKL	LCD backlight ON/OFF control signal

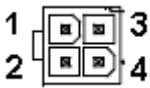
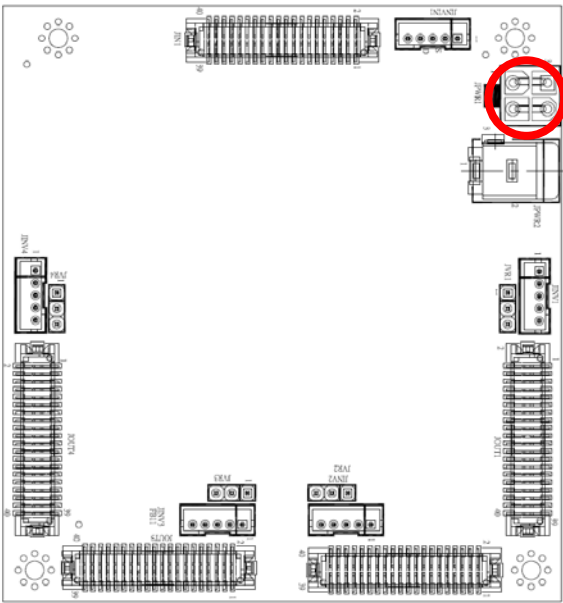
2.3.4 LVDS Output Connector(JOUT1, JOUT2, JOUT3, JOUT4)



Signal	PIN	PIN	Signal
+5V	2	1	+3.3V
+5V	4	3	+3.3V
NC	6	5	NC
GND	8	7	GND
Txout0	10	9	Txout1
Txout0#	12	11	Txout1#
GND	14	13	GND
Txout2	16	15	Txout3
Txout2#	18	17	Txout3#
GND	20	19	GND
Txout4	22	21	Txout5
Txout4#	24	23	Txout5#
GND	26	25	GND
Txout6	28	27	Txout7
Txout6#	30	29	Txout7#
GND	32	31	GND
Txclk	34	33	Txclk1#
Txclk#	36	35	Txclk1#
GND	38	37	GND
NC	40	39	NC

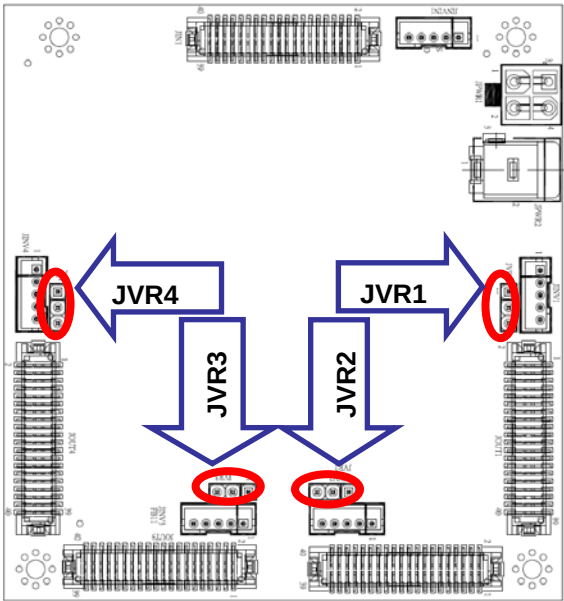
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2.3.5 Power Connector (JPWR1)

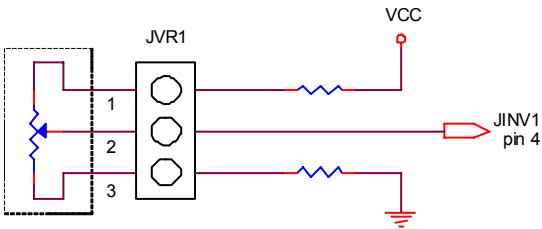


Signal	PIN	PIN	Signal
+12V	1	3	GND
+12V	2	4	GND

2.3.6 LCD backlight brightness adjustment Connector (JVR1,JVR2,JVR3,JVR4)



Signal	PIN
+5V	1
VR	2
GND	3



Variation Resistor
(Recommended: 4.7KΩ, >1/16W)

