

EPM-1502

eDP to VGA converter

User's Manual

1st Ed – 24 November 2022

FCC Statement



THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

A Message to the Customer

Avalue Customer Services

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support

We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult the user's manual first.

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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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.

Always note that improper disassembling action could cause damage to the motherboard. We suggest not removing the heatsink without correct instructions in any circumstance. If you really have to do this, please contact us for further support.

1.2 Packing List

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

- 1 x EPM-1502 eDP to VGA converter



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

2.1 Product Specifications

Component	
I/O Chip	Chrontel CH7517A-BFI
Form factor	Customizes
Input I/F	W-B 40Px1 0.5mm 90D(F)
Output I/F	DB-15 VGA connector
Display	
Spec. & Resolution	1920x1200@60Hz with reduced blanking
Multiple Display	Depend on the Intel platform
Mechanical & Environmental	
Operating Temp.	CH7517A-BF 0~60°C (32~140°F) CH7517A-BFI -40~85°C (-40~185°F)
Storage Temp.	-40°C ~ +75°C (-40 ~167°F)
Operating Humidity	40°C@95% relative humidity, non-condensing
Power	From main board eDP connector
Size (L x W)	50mm*50mm*10.55mm
Weight	11g
Vibration Test	Random Vibration Operation Reference IEC60068-2-64 Testing procedures Test Fh : Vibration broadband random Test 1. PSD: 0.00454G ² /Hz, 1.5 Grms 2. Operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 minutes per each axis 6. IEC 60068-2-64 Test:Fh
	Random Vibration Non Operation Reference IEC60068-2-64 Testing procedures Test Fh : Vibration broadband random Test 1. PSD: 0.01818G ² /Hz, 3.0 Grms 2. Non Operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 minutes per each axis 6. IEC 60068-2-64 Test:Fh

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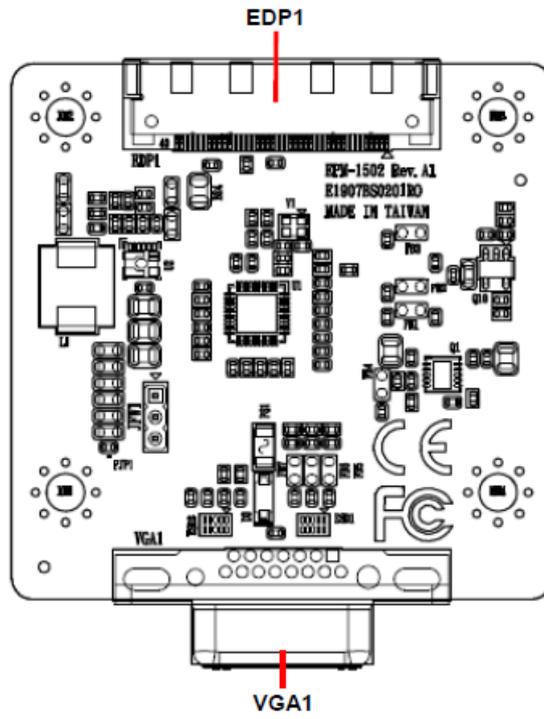
	<p>Package Vibration Test</p> <p>Reference IEC60068-2-64 Testing procedures</p> <p>Test Fh: Vibration broadband random Test</p> <ol style="list-style-type: none">1. PSD: 0.026G²/Hz, 2.16 Grms2. Non-operation mode3. Test Frequency: 5-500Hz4. Test Axis: X,Y and Z axis5. 30 min. per each axis6. IEC 60068-2-64 Test:Fh
OS Information	No need driver. The EPM-1502 will be tested in accordance with the supported OS on the platform or SBC.



Note: Specifications are subject to change without notice.

2. Hardware Configuration

2.2 Product Overview



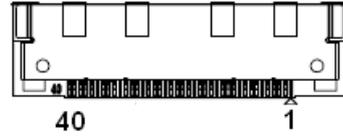
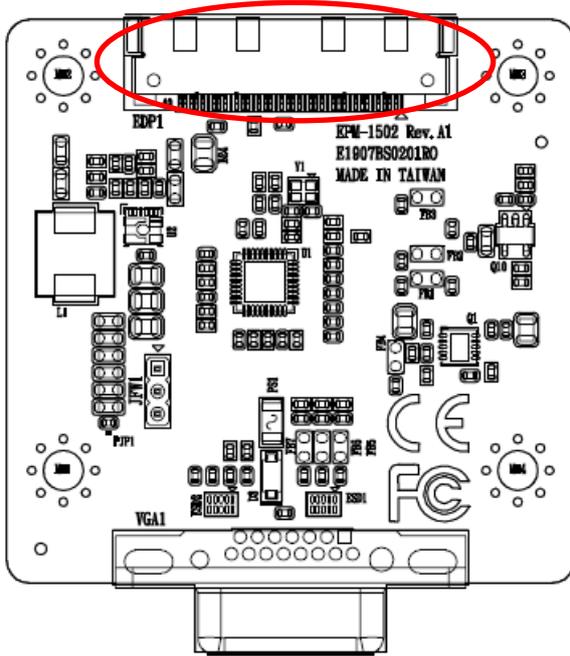
2.3 Connector List

Connectors

Label	Function	
EDP1	eDP connector	40 x 1 wafer, pitch 0.50mm
VGA1	VGA connector	D-Sub 15pin

2.4 Setting Connectors

2.4.1 eDP connector (EDP1)



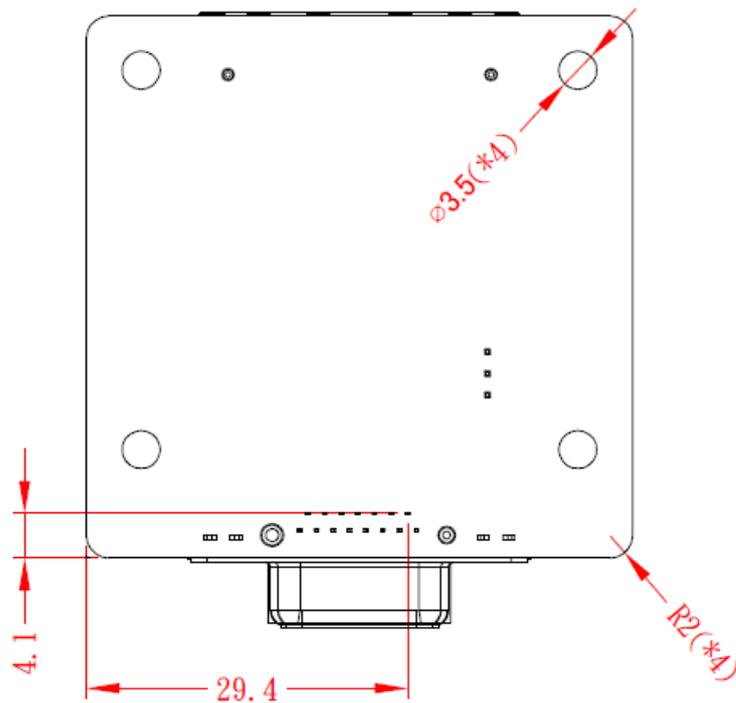
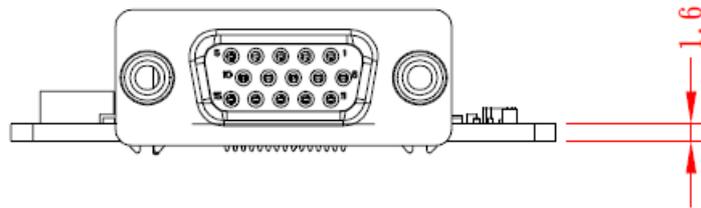
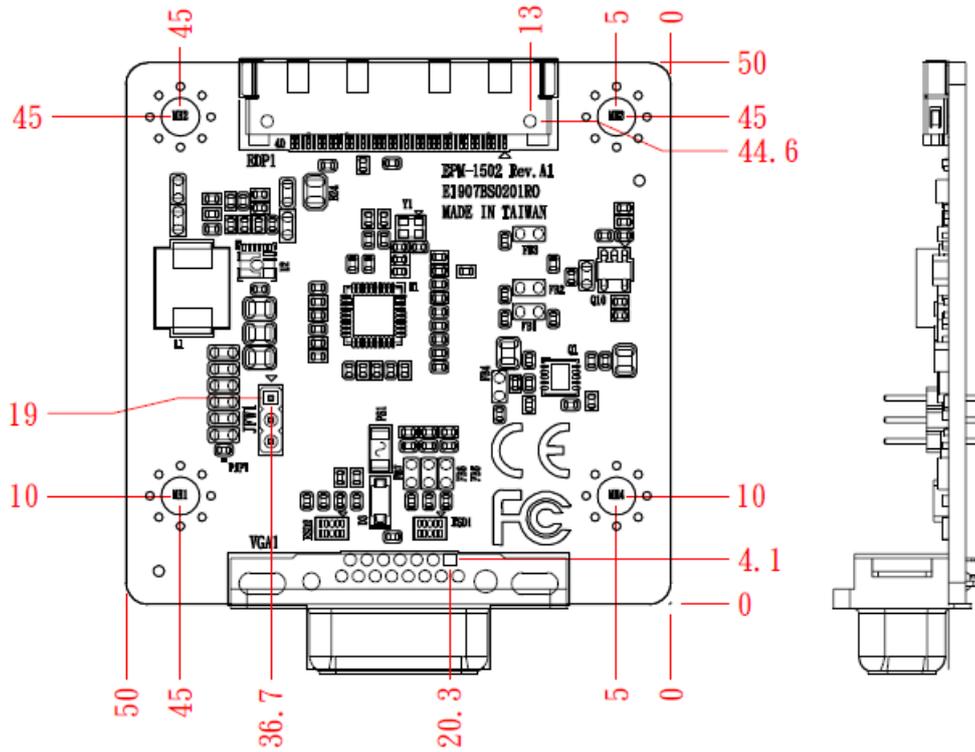
Signal	PIN
NC	1
GND	2
NC	3
NC	4
GND	5
NC	6
NC	7
GND	8
eDP_TX1N	9
eDP_TX1P	10
GND	11
eDP_TX0N	12
eDP_TX0P	13
GND	14
eDP_AUX_P	15

Signal	PIN
eDP_AUX_N	16
GND	17
+3.3V	18
+3.3V	19
+3.3V	20
+3.3V	21
NC	22
GND	23
GND	24
GND	25
GND	26
eDP_HPD_R	27
GND	28
GND	29
GND	30
GND	31
NC	32
NC	33
NC	34
NC	35
+12V	36
+12V	37
+12V	38
+12V	39
NC	40

3. Mechanical Drawing



EPM-1502



Unit: mm

