

EPM-1718

Marine 60W Power Module

User's manual



1st Ed – 18 April 2017

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.

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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-1718 Marine 60W Power Module



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

1.3 Document Amendment History

Revision	Date	By	Comment
1 st	April 2017	Avalue	Initial Release

1.4 Manual Objectives

This manual describes in details Avalue Technology EPM-1718 Single Board.

We have tried to include as much information as possible but we have not duplicated information that is provided in the standard IBM Technical References, unless it proved to be necessary to aid in the understanding of this board.

We strongly recommend that you study this manual carefully before attempting to set up EPM-1718 series or change the standard configurations. Whilst all the necessary information is available in this manual we would recommend that unless you are confident, you contact your supplier for guidance.

Please be aware that it is possible to create configurations within the CMOS RAM that make booting impossible. If this should happen, clear the CMOS settings, (see the description of the Jumper Settings for details).

If you have any suggestions or find any errors regarding this manual and want to inform us of these, please contact our Customer Service department with the relevant details.

1.5 System Specifications

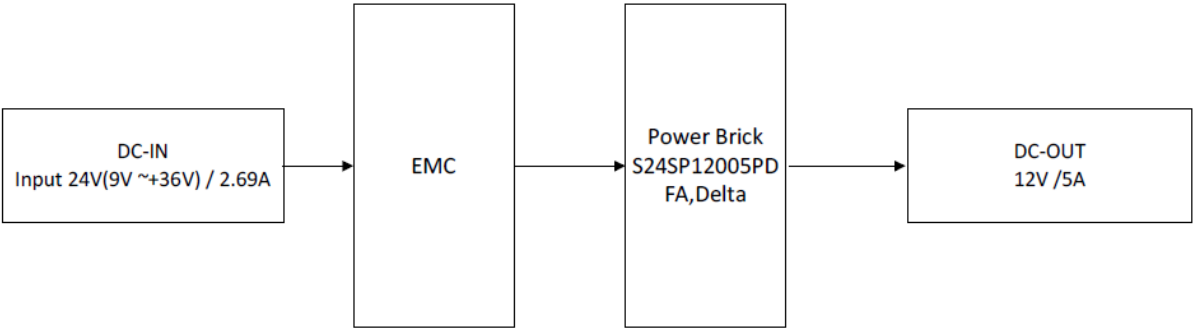
DC In/Out Characteristics	
Power Module	S24SP12005PDFA,Delta
Input Voltage	+9V ~+36V DC
Output Voltage	12VDC
Output Current	5A
Efficiency	Up to 92.8%
Input to Output Isolation	1500VDC
DC In/Out Connection	
Input Power Connector	6 pin wafer 2.5mm
Output Power Connector	6 pin wafer 2.5mm
Environmental Specification	
Operating Temp.	-40°C ~ 85°C
Storage Temp.	-40°C ~ 85°C
Operating Humidity	5% ~ 90% relative humidity, non-condensing
Size (L x W)	100mm x 80mm
Weight	0.33lbs(0.15kg)



Note: Specifications are subject to change without notice.

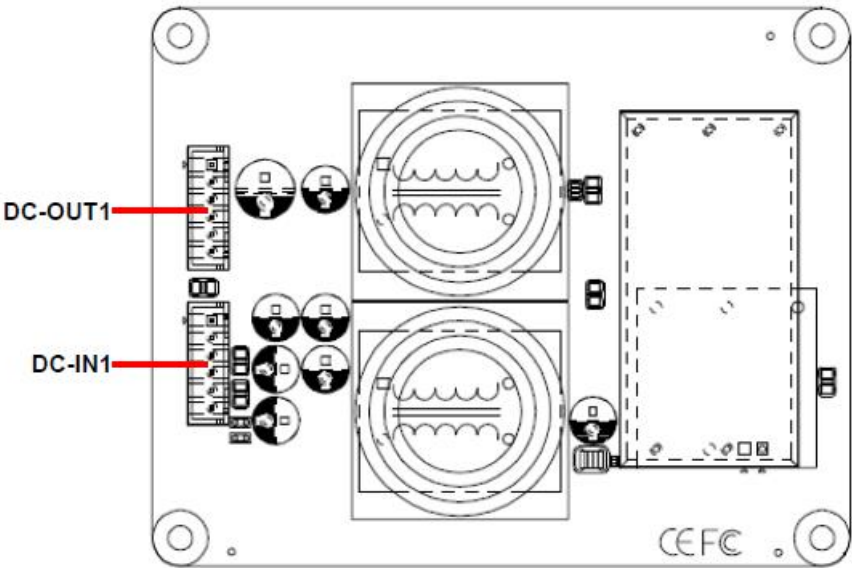
1.6 Architecture Overview—Block Diagram

The following block diagram shows the architecture and main components of EPM-1718.



2. Hardware Configuration

2.1 Product Overview



2.2 Connector List

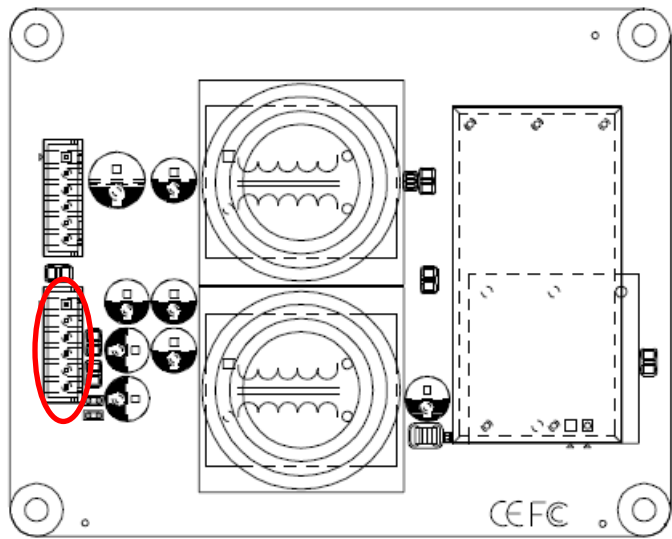
The following tables list the function of each of the board’s connectors.

Connectors

Label	Function	Note
DC-IN1	DC power-in connector	6 x 1 wafer, pitch 2.50mm
DC-OUT1	DC power-out connector	6 x 1 wafer, pitch 2.50mm

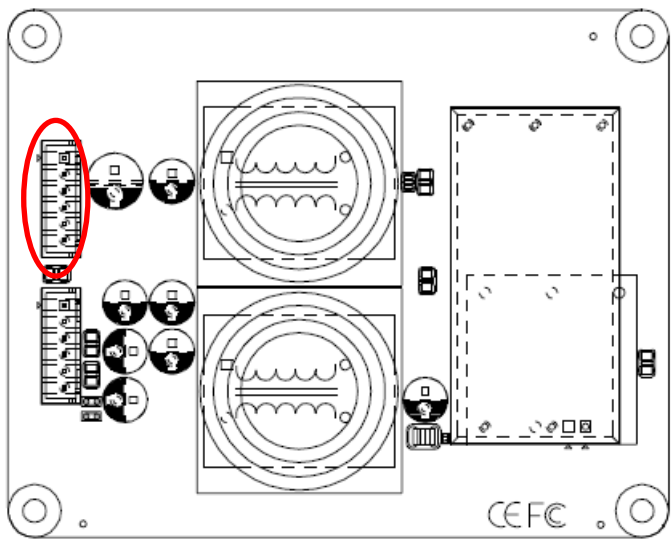
2.3 Setting Connectors

2.3.1 DC power-in connector (DC-IN1)



PIN	Signal
1	+PWRIN
2	+PWRIN
3	+PWRIN
4	GND
5	GND
6	GND

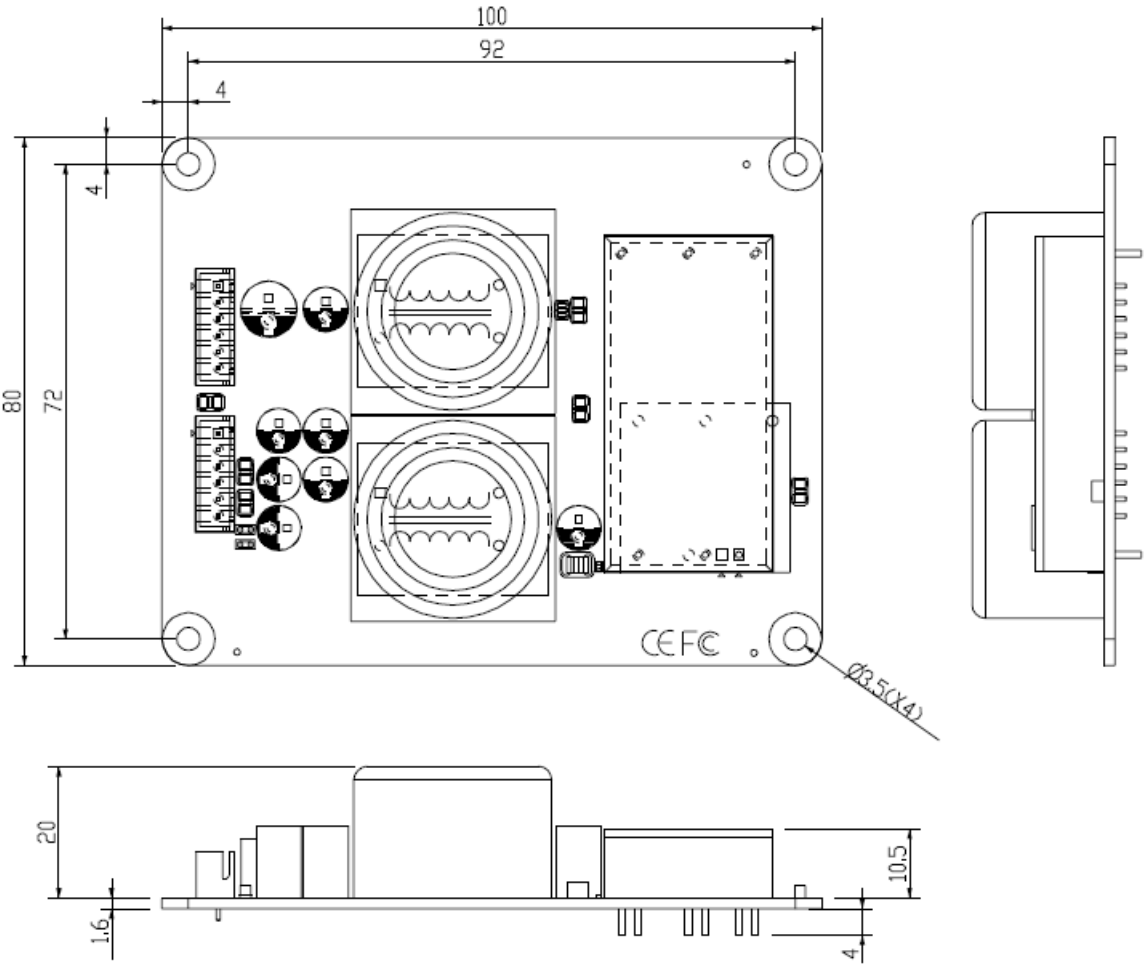
2.3.2 DC power-out connector (DC-OUT1)



PIN	Signal
1	+PWROUT
2	+PWROUT
3	+PWROUT
4	GND
5	GND
6	GND

3. Mechanical Drawing





Unit: mm

