

# PCM4 manual

## G43 version



**ISIC**

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## FCC Warning

Computing devices and peripherals generate, use, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions advised by ISIC A/S, may cause interference to radio communication.

The PCM4 series of PC's, manufactured by ISIC A/S, is designed to comply with the emerging generic EEC standards, that cover applications in maritime environment.

## Classification

The display is classified as Environmental condition "protected" acc. to EN60945 ed. 4

## Approvals

Approval according to EN60945 ed. 4; Maritime navigation and radio communication equipment and systems – General requirements.



ISIC A/S is complying with the WEEE directive within the European Union, stating that electronic and electric products must be collected separately.

Products are marked according to the directive

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## **ISIC PCM4 User Manual**

Congratulations on your purchase of ISIC PCM4. This short form manual is designed to get you started working with your new PCM4. It is not meant to cover all possible options or situations. For a more detailed description of the PCM4 motherboard, please read the fully comprehensive Main Board Manual obtainable on the CDROM.

Package contents:

- 1 PCM4
- 1 CDROM containing PCM4 Manual and Main Board Manual (optional)
- 1 Power cable (optional)

If any of these items are not present, please contact ISIC.



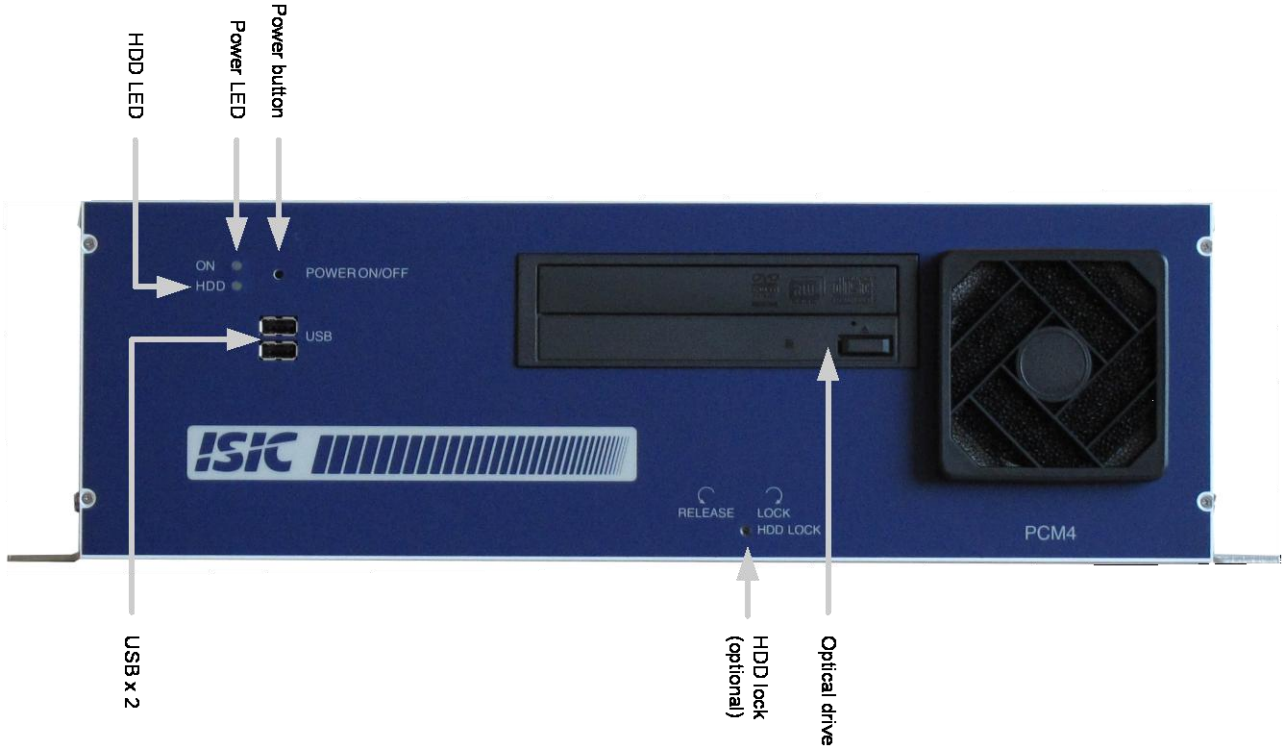
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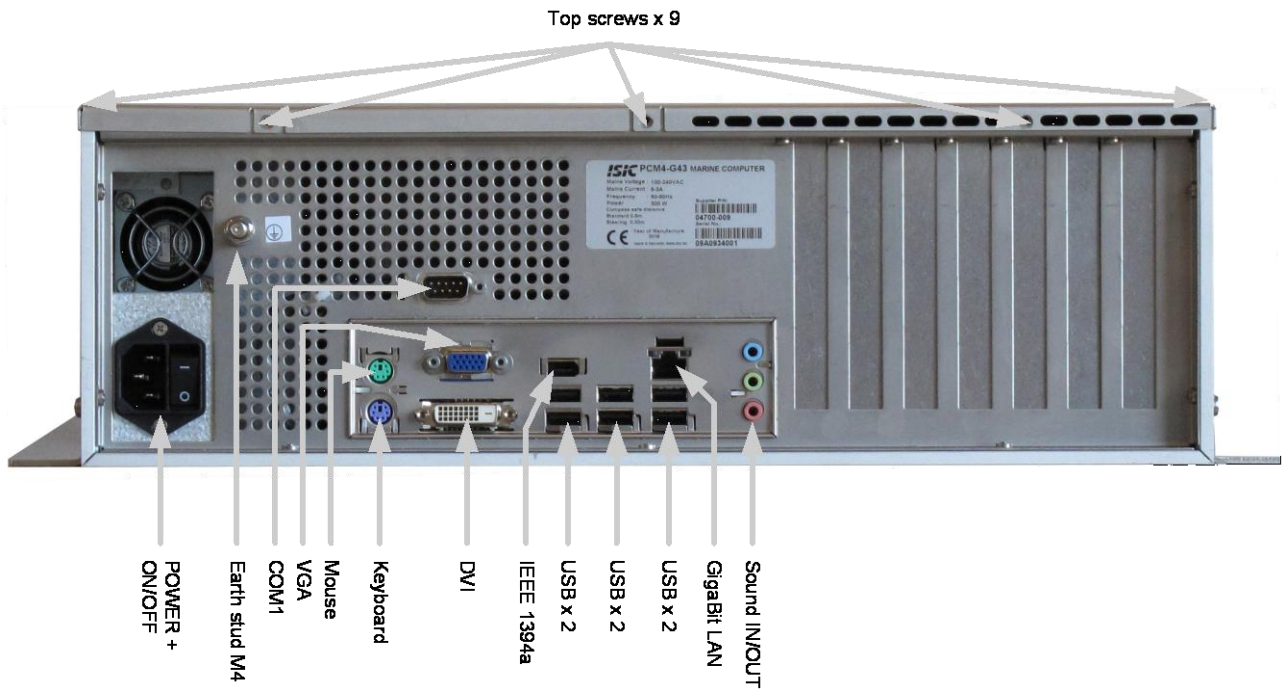


# PCM4 overview (DG43NB version)

## Front view PCM4-G43

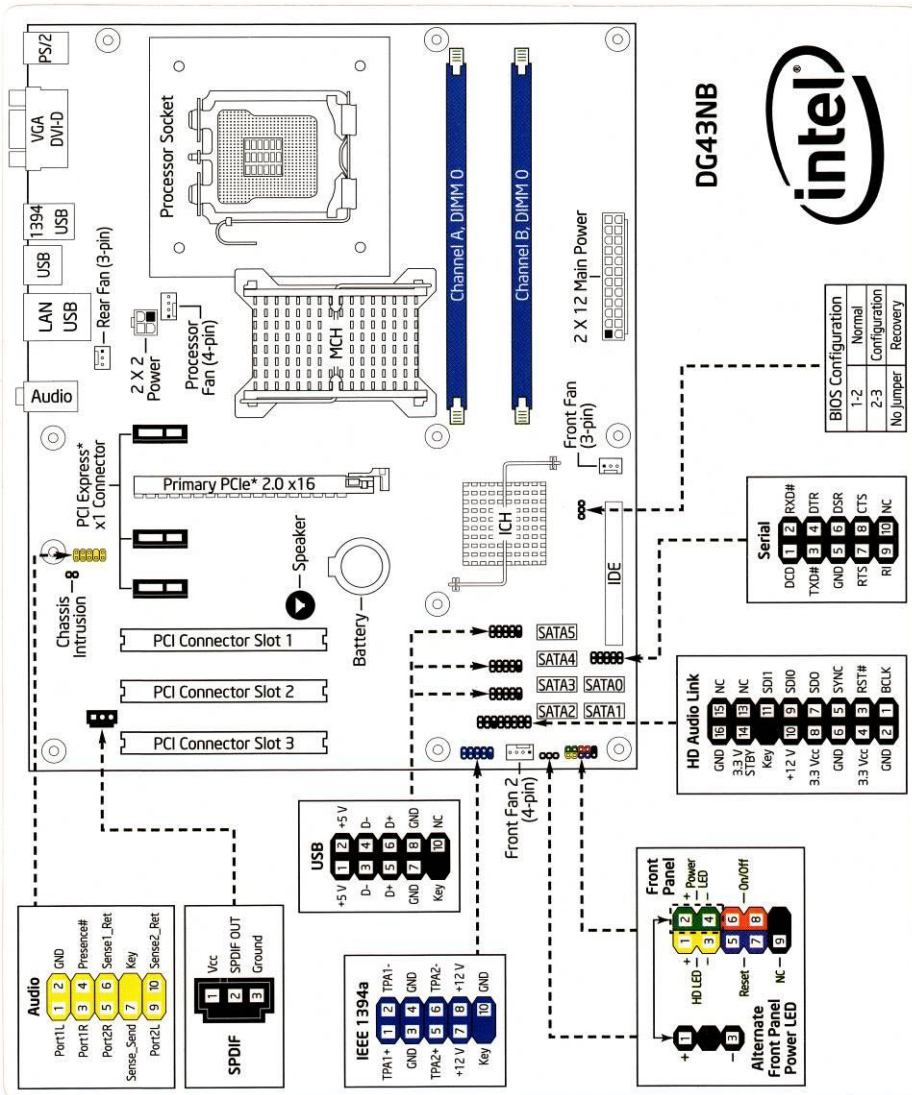


## Rear view PCM4-G43



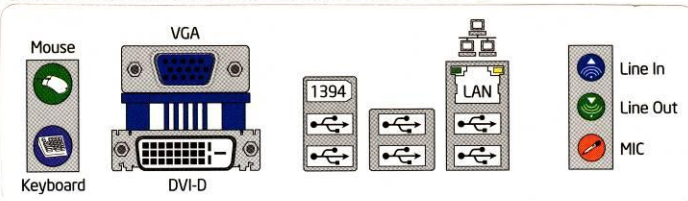
# Motherboard connection overview (DG43NB version)

Below is an overview of motherboard connections and pin-out of the same.



## CAUTION

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.



Attach this label near the back panel connectors.

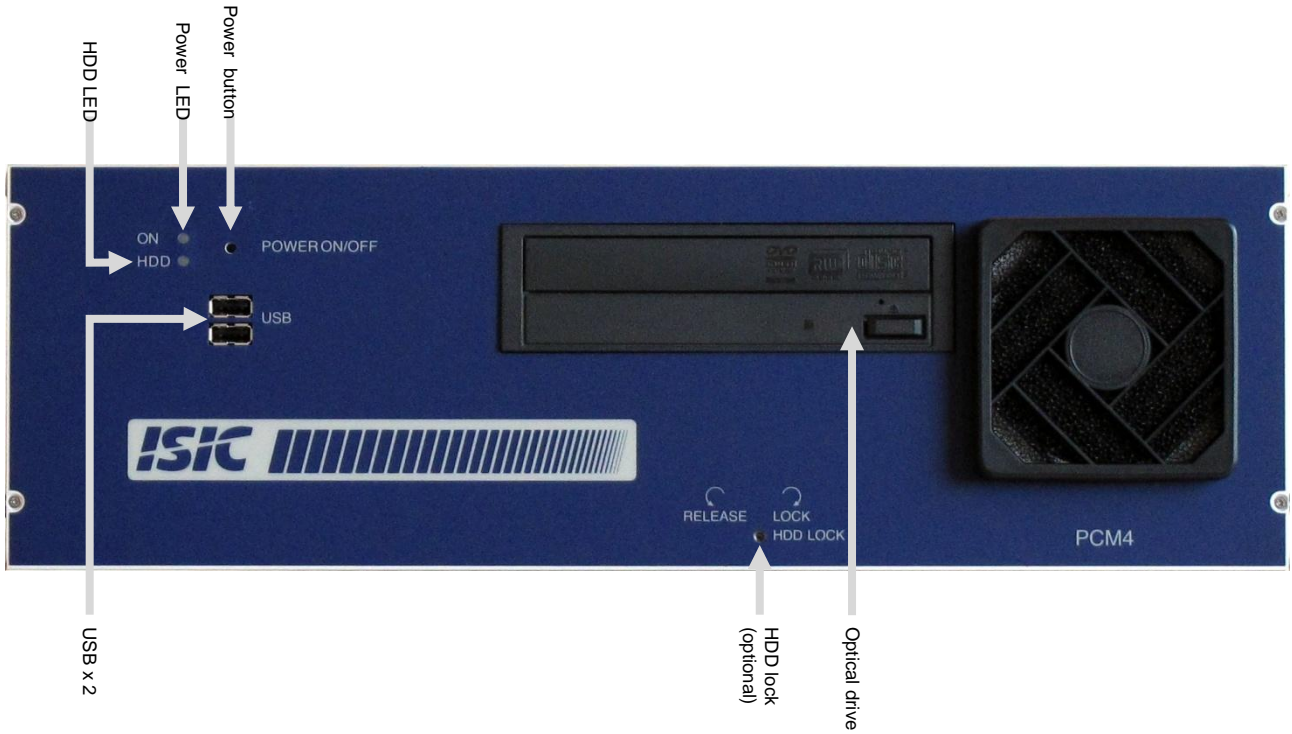
Attach this label to the inside surface of the chassis.

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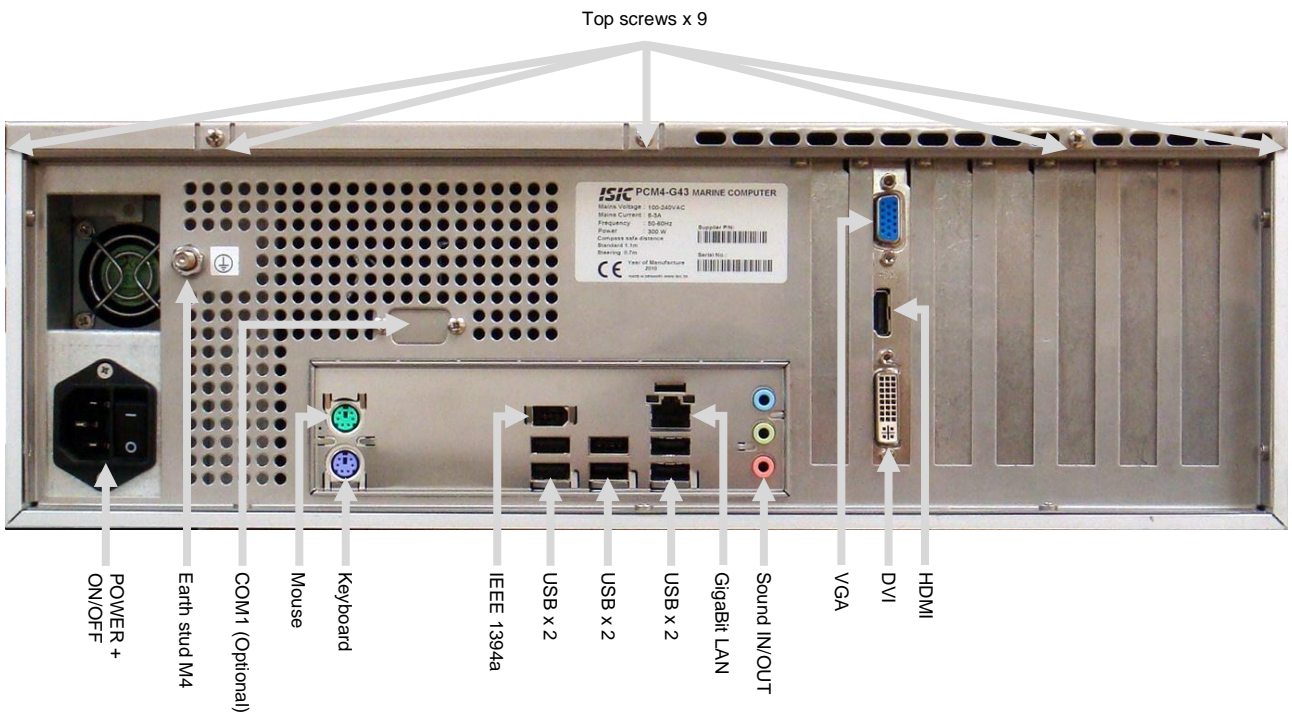
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# PCM4 overview (DP43TF version)

## Front view PCM4-G43

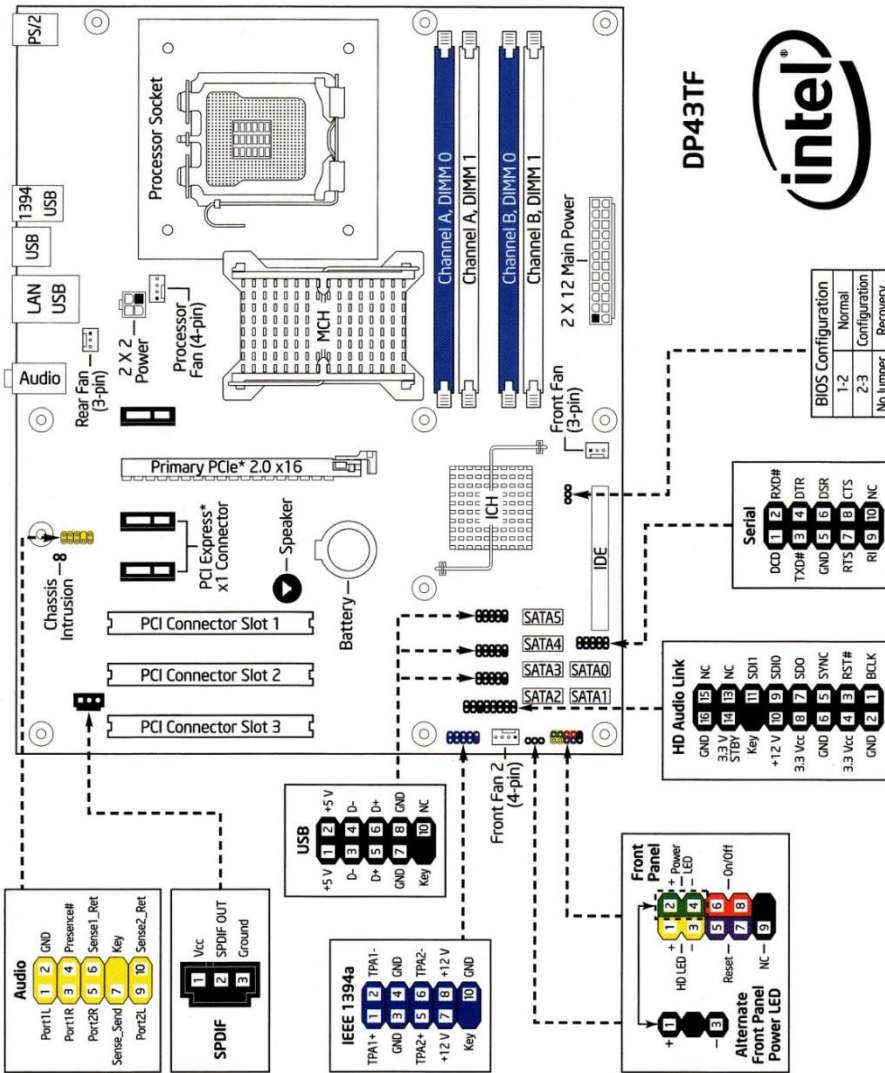


## Rear view PCM4-G43



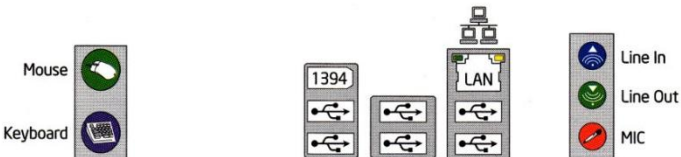
# Motherboard connection overview (DP43TF version)

Below is an overview of motherboard connections and pin-out of the same.



## CAUTION

Risk of explosion if the battery is replaced with an incorrect type. Batteries should be recycled where possible. Disposal of used batteries must be in accordance with local environmental regulations.



Attach this label near the back panel connectors.

Attach this label to the inside surface of the chassis.

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## Getting started

Please refer to the *PCM4 overview* for location of connectors specified in this section.

Connect Keyboard/Mouse to the connectors specified in *PCM4 overview* or connect to the USB connectors.

Connect the monitor to the RGB or DVI connector.

Connect all other needed connectors ending with the Power outlet.

Press the ON/OFF button to "I" position.

To power up the PCM4, you need to press the power button. Use a pencil or similar for that purpose. If the temperature is very cold (below approx. 1.5°C) and the PCM4 has the special ISIC HPC option (Heater Power Controller) the PCM4 will automatically begin warming the components inside. That process will take some minutes. During that process, the power LED will flash green to indicate the warming process. When the PCM4 has reached the sufficient temperature, it will automatically start to boot.

Please refer to PCM4 system indicators on page 10 for an in-depth description.

The PCM4 will be in standby mode when you power down. To restart the PCM4 again, use a pencil on the power button.

## Before installing at end customer (HDD transportation lock)

First release the HDD transportation lock (optional) at the front of the PCM4. Rotate the screw counter clock-wise until loose (about 8 full turns), then it is possible to remove the plastic key in the bottom.



**IMPORTANT: always lock the Hard Drive before shipping the PCM4. Failing to lock the Hard Drive will void warranty!**

The plastic key in the bottom of the cabinet is not needed to ship the PCM4

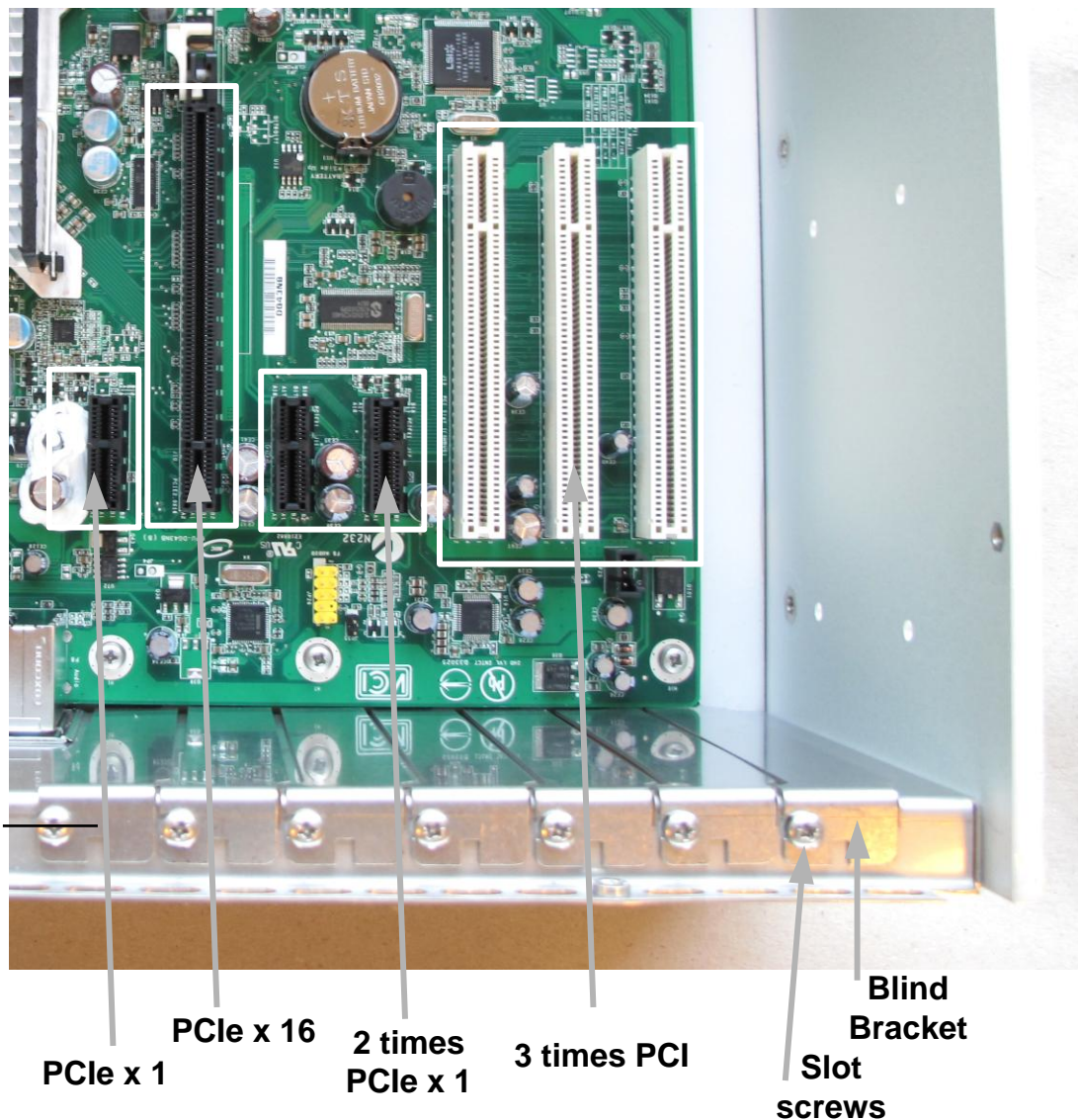
## Installing additional expansion cards

Always disconnect the Power outlet before removing the top cover.

Remove the 9 overhead screws and top cover.

Remove the slot screw and remove the blind bracket. Install the add-on card in the slot and then replace the slot screw. Replace the top cover and the 9 overhead screws.

### PCM4-G43 motherboard



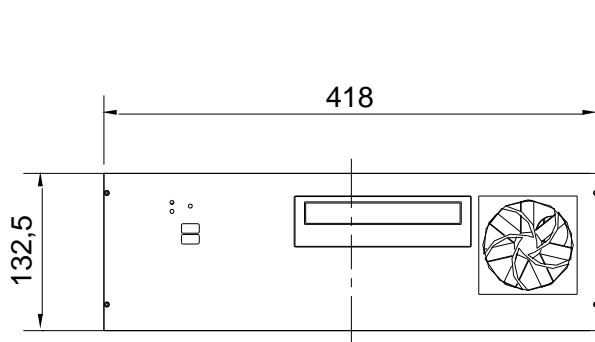
**ATTENTION - This marine computer is covered by ISIC warranty, and any alterations may render marine certificate and warranty invalid**



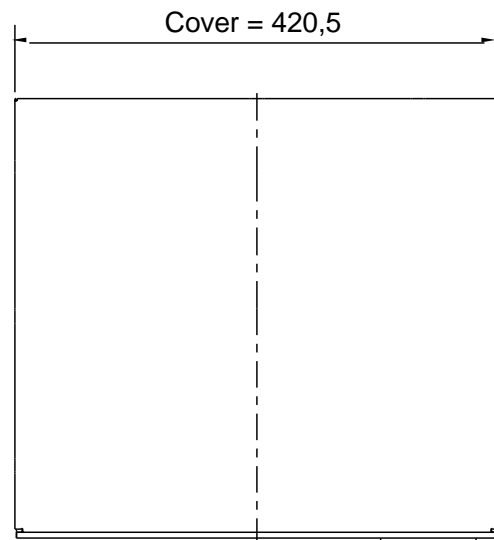
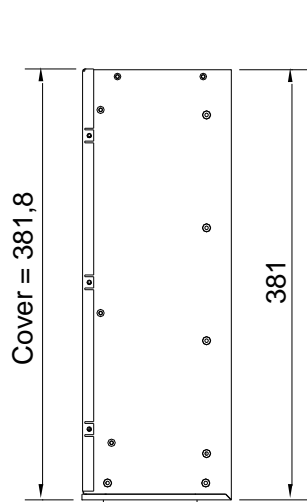
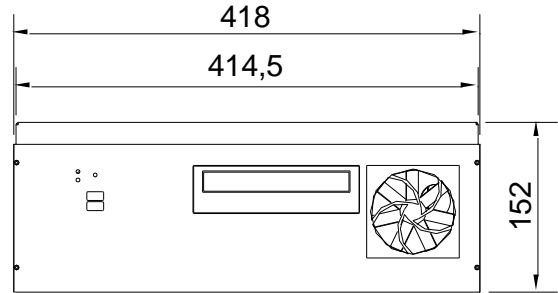
## Mechanical dimensions

The cabinet is available in 2 heights, standard and extra high (for some oversize add-on cards)

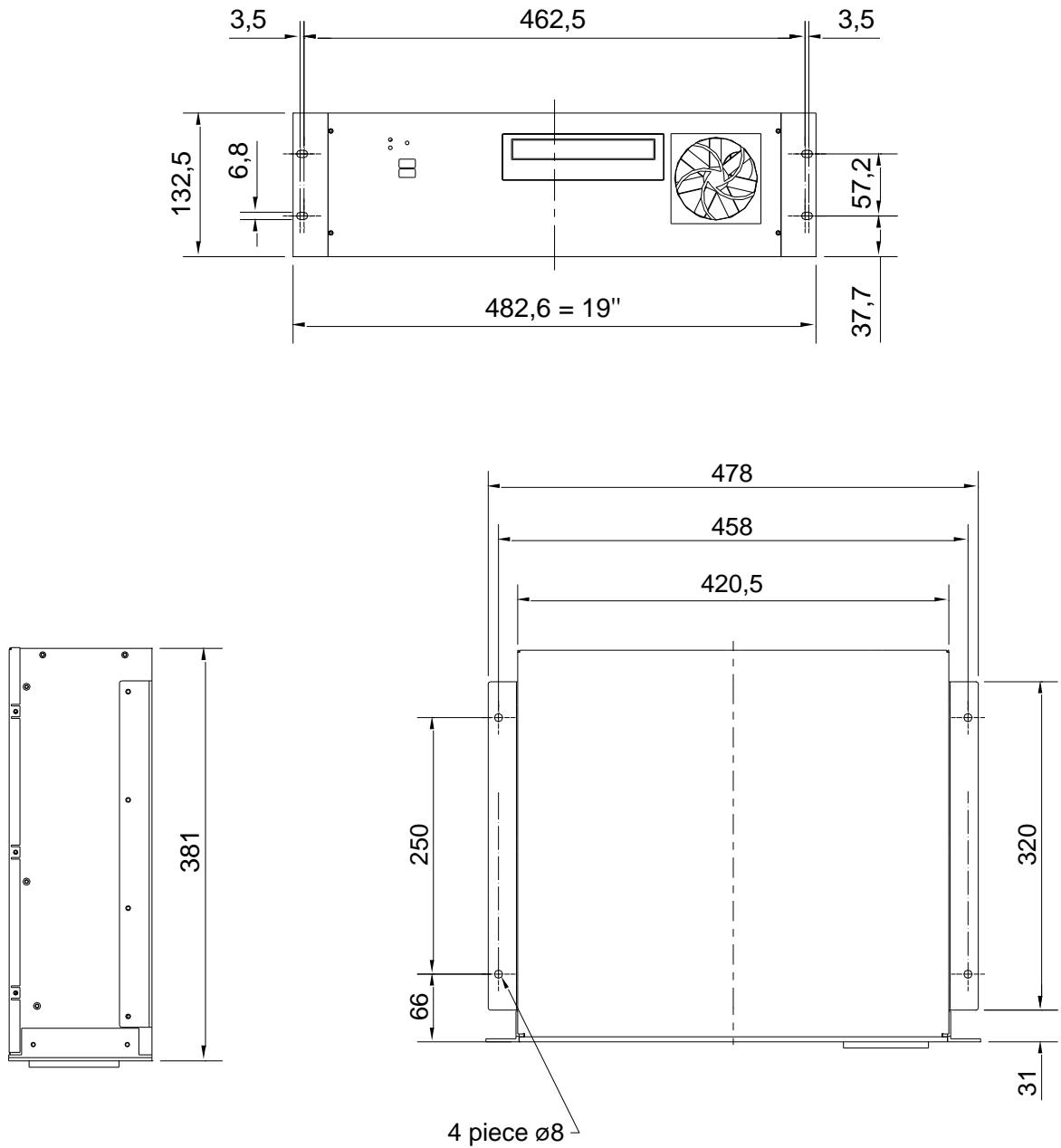
Standard model



Extra high model



Cabinet with 19" brackets and rails.



## Mounting positions

The PCM4 can be mounted in horizontal and vertical positions, but NOT upside down. If needed, it is also possible to mount the PCM4 with the DVD drive facing downwards.



## PCM4 System Indicators

The PCM4 is equipped with two LED's, located on the case front.

Having a version without the ISIC HPC option (Heater Power Control), the upper LED is used to simply indicate if the system is on or off, while the lower LED indicated Hard Disk activity.

In a PCM4 having the ISIC HPC option the display capability has been extended to provide an indication of the current PCM4 system state. The lower LED still indicates Hard Disk activity; the upper LED has been reconfigured as described in the following table:

LED Indication	Description
Off	Power is removed from the system.
Red Flashing	Boot sequence is delayed while the Hard Disk Drive is heated. 1.25 Hz : HDD Temperature is below -5°C 2.5 Hz : HDD Temperature is between -5°C and +5°C 5 Hz : HDD Temperature is above +5°C
Green Flashing	The system is monitored for 10 seconds to ensure valid boot-up. If the motherboard shuts down as a consequence of BIOS "Last State" settings, it will be forced to reboot.
Green	System is on.
Red	System is in standby mode.



## Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solutions</b>
The PCM4 won't start	<ul style="list-style-type: none"><li>- There is no power connected</li><li>- The ON/OFF button at the rear side is in the 'O' position (ac version only)</li><li>- The power button on the front has not been pressed</li></ul>	<ul style="list-style-type: none"><li>- Connect the power cord</li><li>- Push the ON/OFF button to the 'I' position</li><li>- Use a pencil on the power button</li></ul>
	<ul style="list-style-type: none"><li>- USB power overload</li></ul>	<ul style="list-style-type: none"><li>- Read paragraph below</li></ul>
The PCM4 starts, but there is no picture on the screen	<ul style="list-style-type: none"><li>- The display cable is not connected, or have fallen out</li><li>- The Power LED is flashing green (HPC option only)</li> <li>- Your brightness/contrast on the monitor is either at max or min level.</li></ul>	<ul style="list-style-type: none"><li>- Connect the display cable</li> <li>- The temperature is low and the PCM4 is warming up. This process will take about 5 minutes.</li><li>- Turn the brightness/contrast to the correct levels.</li></ul>

## General notes on USB

In the USB specification a max power consumption of 500mA on each USB port is specified. If you experience start up problems, start by removing all USB devices, and then try to restart the PCM4 again.

Faulty USB devices can also cause malfunction of your PCM4.

## Support

In case you have problems with your PCM4, you have a number of possibilities to get support.

Visit our web site: [www.isic.dk](http://www.isic.dk)

Email us: [support@isic.dk](mailto:support@isic.dk)

Call during normal business hours (CET): +45 70 20 70 77



## Technical specifications (DG43NB version)

CPU	Intel Core2Quad 2.66GHz or Intel Core2Duo 2.8GHz
Memory	256MB+ DDR2 SDRAM (4GB maximum)
Video	VGA x 1 and DVI x 1 (see details in your motherboard manual)
LAN	Gigabit LAN x 1 (see details in your motherboard manual)
Audio	5.1 + 2-channel (see details in your motherboard manual)
COM ports	RS232 x 1
Harddisk	40 GB+ SATA, 5400RPM, shock protected (several possibilities e.g. SSD)
CD-ROM	DVD ROM, CD-RW SATA drive
USB 2.0	2 x USB on front and 6 x USB on back
Power supply	90-265 VAC 300 Watt
Power consumption	100-150 watt typical (depending on processor type and add on cards)
Operation temperature	-15 to 55°C
Storage temperature	-25 to 70°C
Relative humidity	10 – 80 % (non-condensing)
Dimensions (H/W/D)	132.5mm x 420.5mm x 381mm (without mounting brackets) 132.5mm x 478 mm x 381mm (with mounting brackets)
Weight	10.75 kg

## Technical specifications (DP43TF version)

CPU	Intel Core2Quad 2.66GHz or Intel Core2Duo 2.8GHz
Memory	256MB+ DDR2 SDRAM (8GB maximum)
Video	VGA x 1, DVI x 1 and HDMI x 1
LAN	Gigabit LAN x 1 (see details in your motherboard manual)
Audio	5.1 + 2-channel (see details in your motherboard manual)
COM ports	RS232 x 1 (optional)
Harddisk	40 GB+ SATA, 5400RPM, shock protected (several possibilities e.g. SSD)
CD-ROM	DVD ROM, CD-RW SATA drive
USB 2.0	2 x USB on front and 6 x USB on back
Power supply	90-265 VAC 300 Watt
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Weight	10.75 kg



## Revision log

<b>Revision</b>	<b>Date</b>	<b>Changes</b>
A	Aug 2009	First release
B	Feb 2010	- Motherboard connection overview added - Note added: "ATTENTION - This marine computer is covered by ISIC warranty, and any alterations may render marine certificate and warranty invalid"
C	Sep 2010	- DP43TF version added. - Maximum RAM size added. - Small typos fixed.





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