



GHF51 Installation Guide

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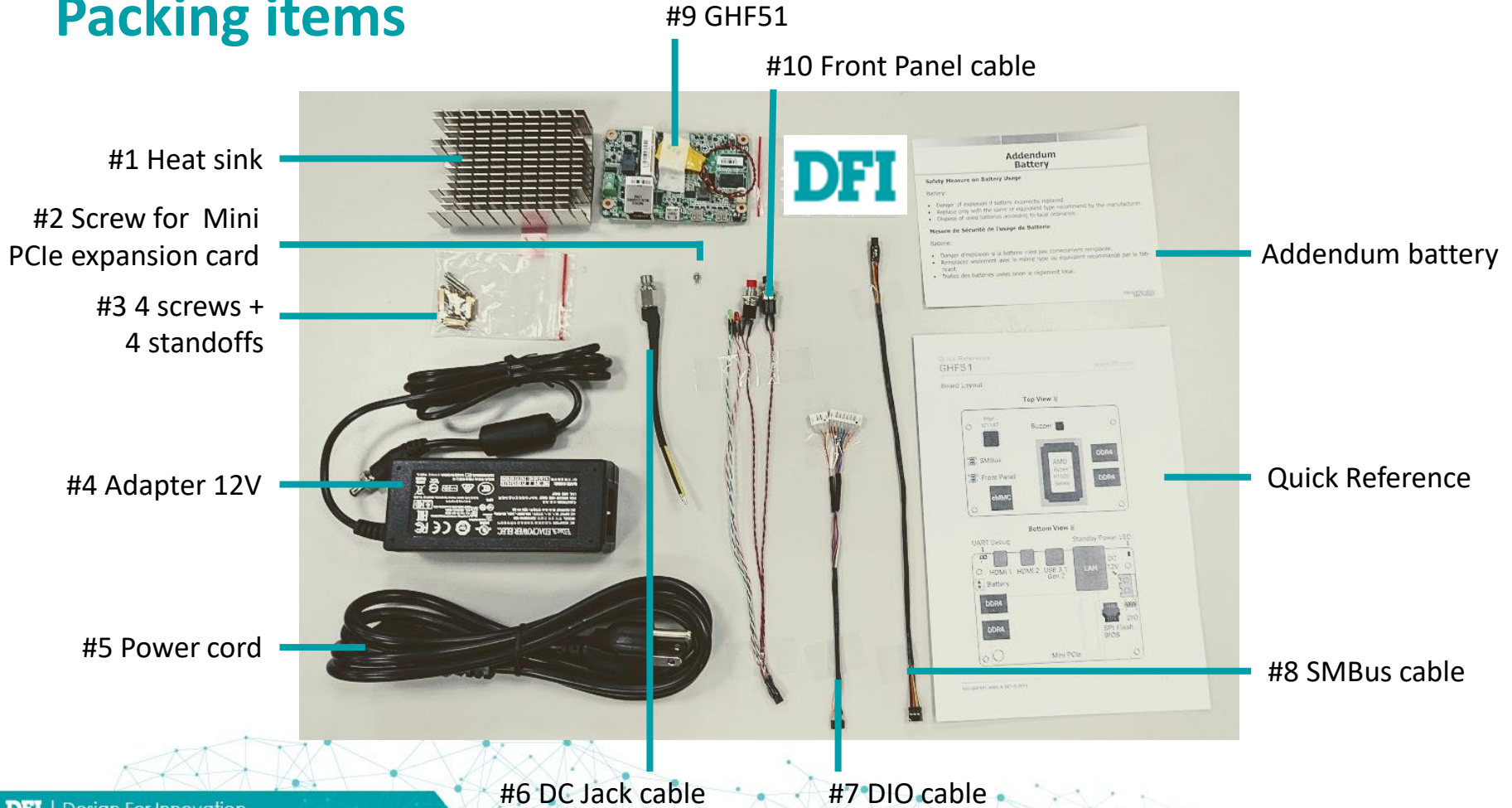
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Board Default Spec

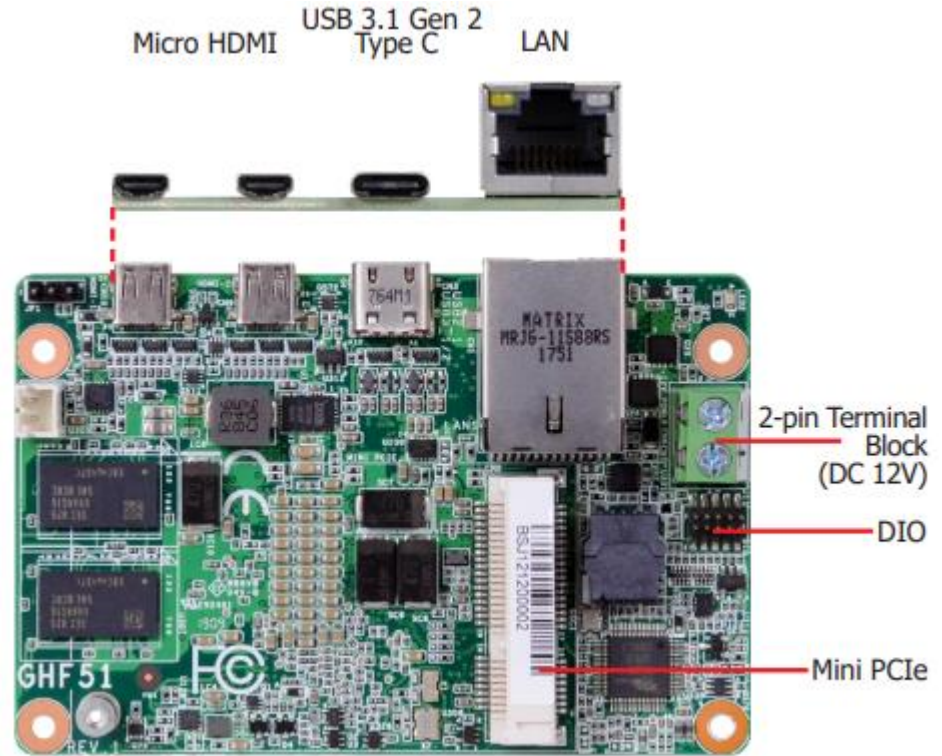
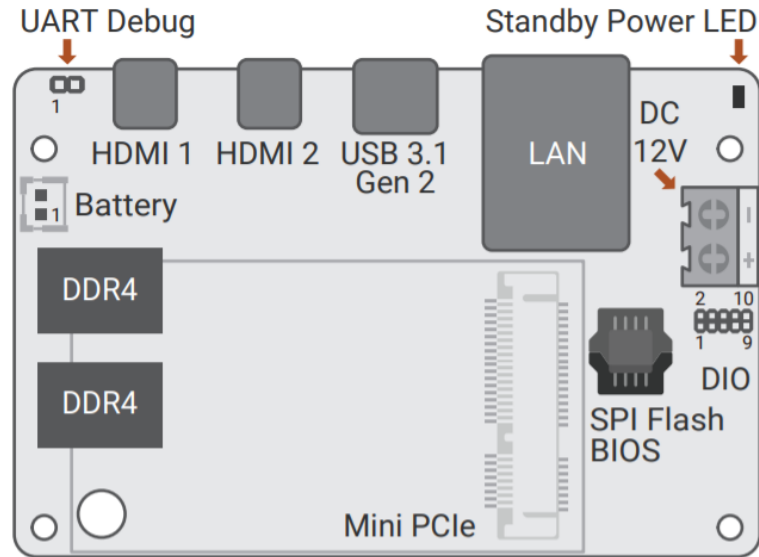
| Item | Description |
|-----------------------------|--|
| CPU | AMD Ryzen R1606G with Radeon Vega Gfx 2.6GHz |
| Memory | SAMSUNG DDR4-2400 SDRAM 8Gb, 512Mx16 |
| Storage | eMMC: eMMC 5.1, 64G, -25°C~+85°C |
| OS | Windows 10 RS5 64-bits |
| BIOS Version | B201.17A |
| Driver Version | (Driver_643-GHF511-000G_191120_03.iso) `AMD Radeon Vega 3 Graphics: 25.20.15033.8001 (Package: 18.50.33.08.190820a-346167C-AES) `AMD Chipset: 5.12.0.38 (Package: 18.50.33.08.190820a-346167C-AES) `AMD Audio: 10.0.1.7 (Package: 18.50.33.08.190820a-346167C-AES) `Intel I211 Driver: 12.18.9.1 (package: 24.1) |
| Other kits needs to prepare | USB Type C Hub: to joint keyboard/mouse. Micro HDMI cable: to connect monitor. |



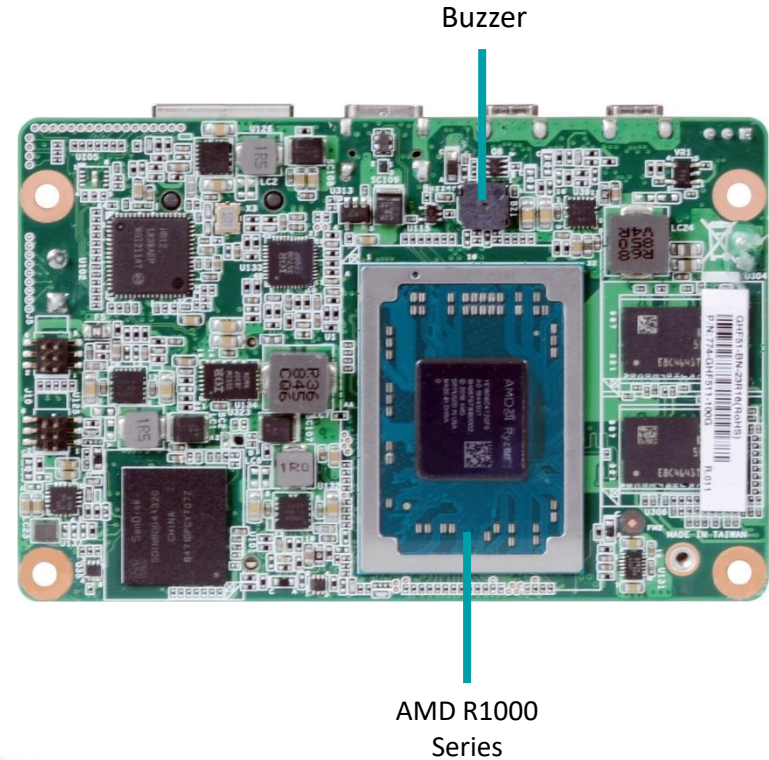
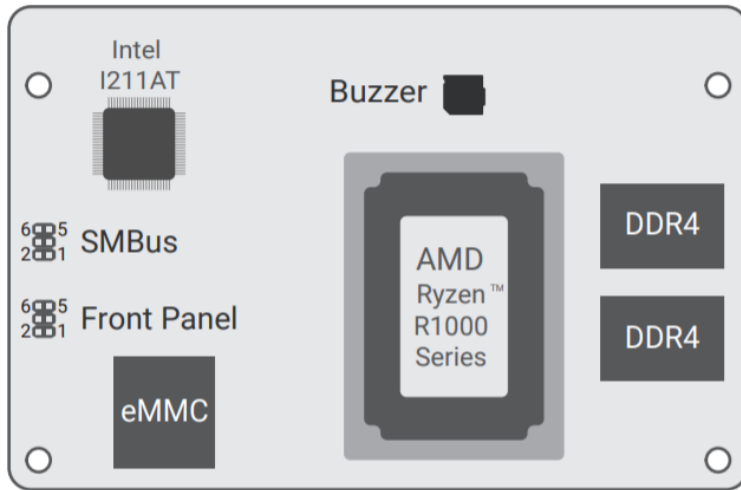
Packing items



GHF51 Board Layout (Top View)

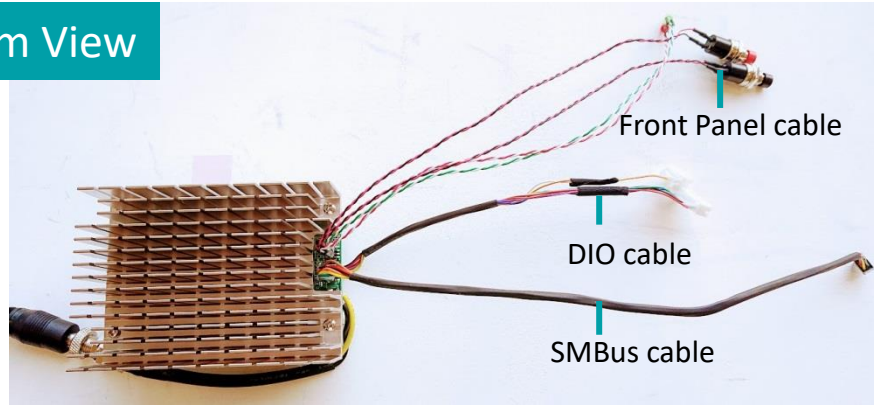


GHF51 Board Layout (Bottom View)

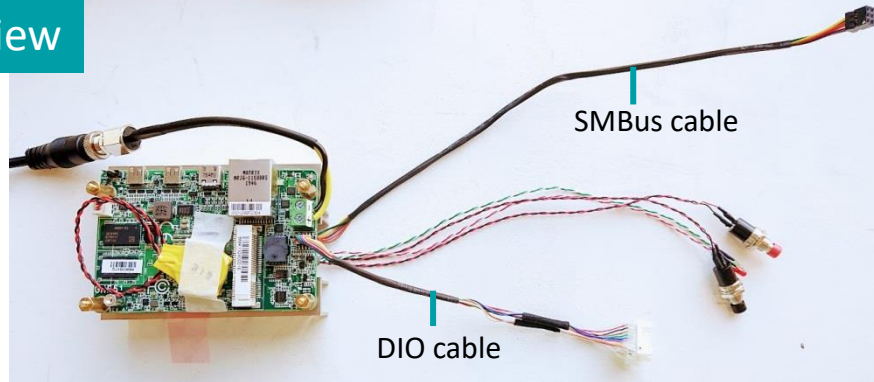


Multi-view of Installation

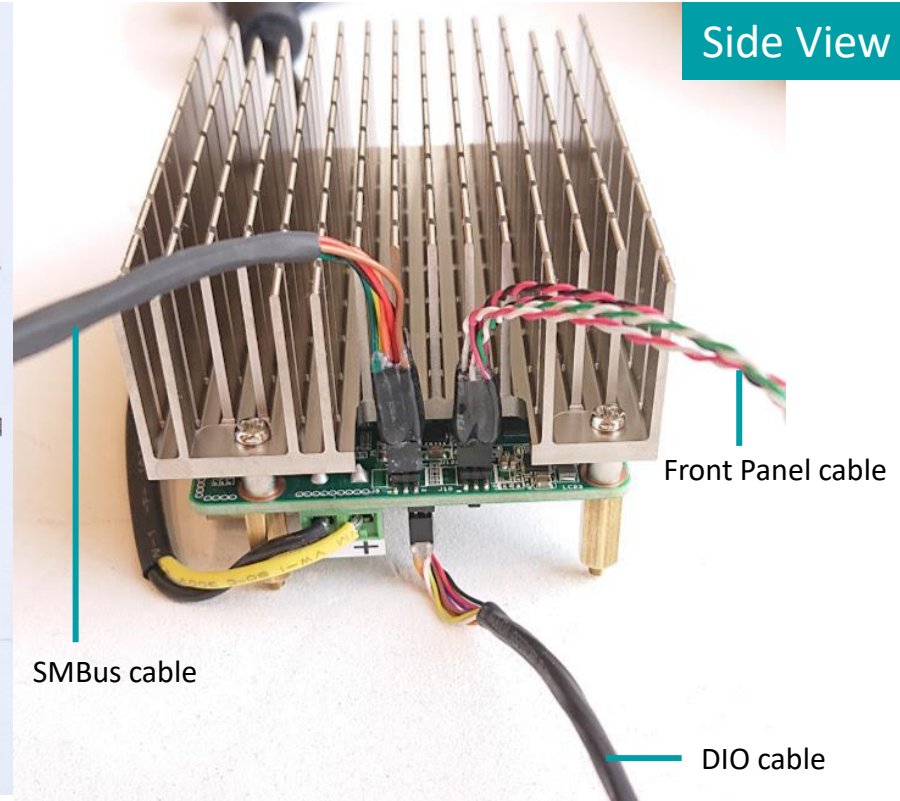
Bottom View



Top View



Side View



Heat sink Installation

Step 1.

Make sure the contacting sides of the heat sink and the module are correct: the CPU side of the module shall be facing the interface metal side and legs of the heat sink.

Step 2.

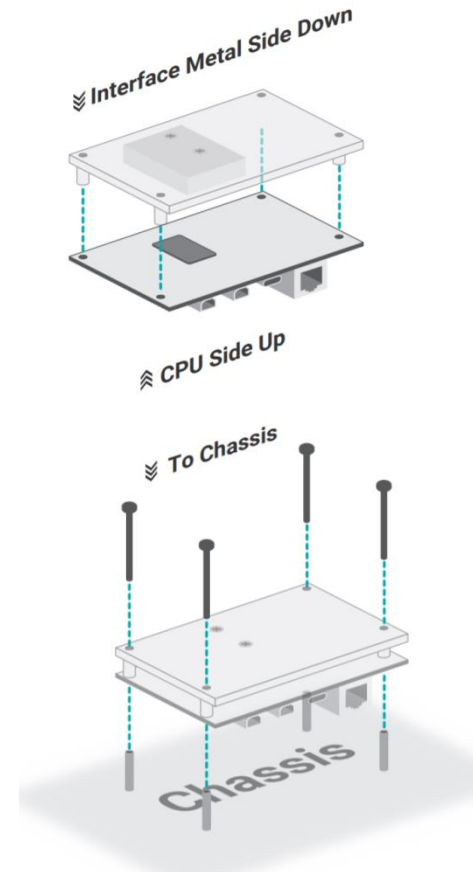
Rotate horizontally so the interface metal sits right on top of the CPU.

Step 3.

Remove any plastic cover on the interface metal and apply thermal paste/adhesive if it is required.

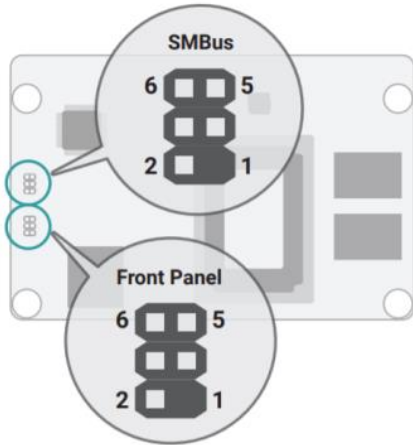
Step 4.

Place the screws that come with the package into the screw holes, and use a screw driver to fasten the screws until the combo is securely fixed together.

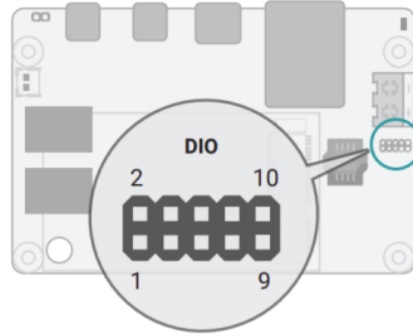


Pin Assignments of Internal I/O

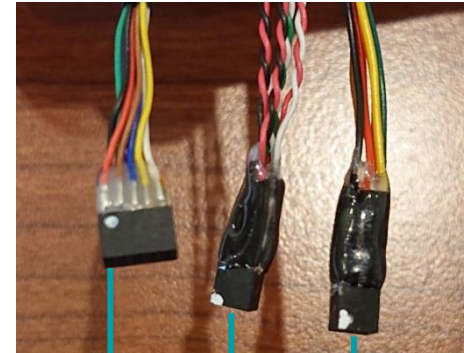
Top View



Bottom View



The white dot on the cables indicate Pin 1

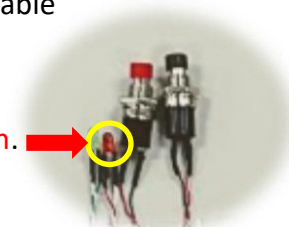


DIO cable
SMBus cable
Front panel cable

Note 1: The Pin 1 of DIO/SMBus cable should be connected to DIO/SMBus Pin 1 on the motherboard.

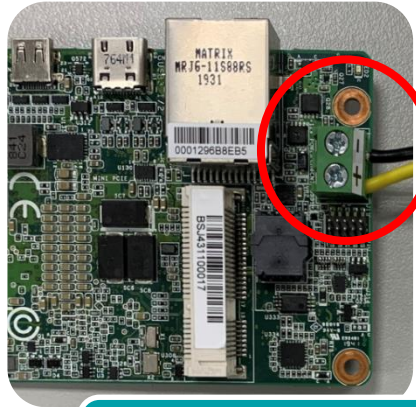
Note 2: **The Pin 1 of Front Panel cable should be connected to Front Panel Pin 6 on the motherboard.**

*Due to Pin definition on GHF51 different from other boards, **the HDD_LED (Red) doesn't function.** →



How to power on?

(Get started after installed the accessories)



Plug the #4 (power cable) into power connector.

*Yellow: PWR.

*Black: GND.



Connect the #4 (power cable) with #2 (adapter) and #3 (power cord).



When the standby power LED lights green and you hear the beep sound, it means GHF51 is powered on.

Links and Downloads

| | | |
|--------------------|---|---|
| ✓ EAPI: | http://cloudspace.dfi.com/index.php/s/FgUoUYGGOSVctQm |  |
| ✓ Quick Reference: | https://www.dfi.com/Uploads/DownloadCenter/75ffc6a4-68e8-4a3a-8339-29999b46d6a1/DFI-GHF51-1.8-SBC-QR.pdf?timestamp=1583377987.26878 |  |
| ✓ User Manual: | https://www.dfi.com/Uploads/DownloadCenter/ba99e452-3930-4622-953c-6f005acc0e1/DFI-GHF51-1.8-SBC-Preliminary-Manual.pdf?timestamp=1587949330.32212 |  |
| ✓ Datasheet: | https://www.dfi.com/Uploads/DownloadCenter/c3922fd7-4e08-48bb-a76c-4b6f68e5a609/DFI-GHF51-1.8-SBC-DataSheet.pdf?timestamp=1587952579.92407 |  |

The logo for DFI, consisting of the letters 'DFI' in a bold, white, sans-serif font, positioned in the upper right corner of the slide. The background of the slide is a dark teal color with a network of light blue dots and lines forming a complex, interconnected pattern that resembles a molecular or data network structure.

Thank you