DFI®
GM341-GHF Installation Guide

Package Contents

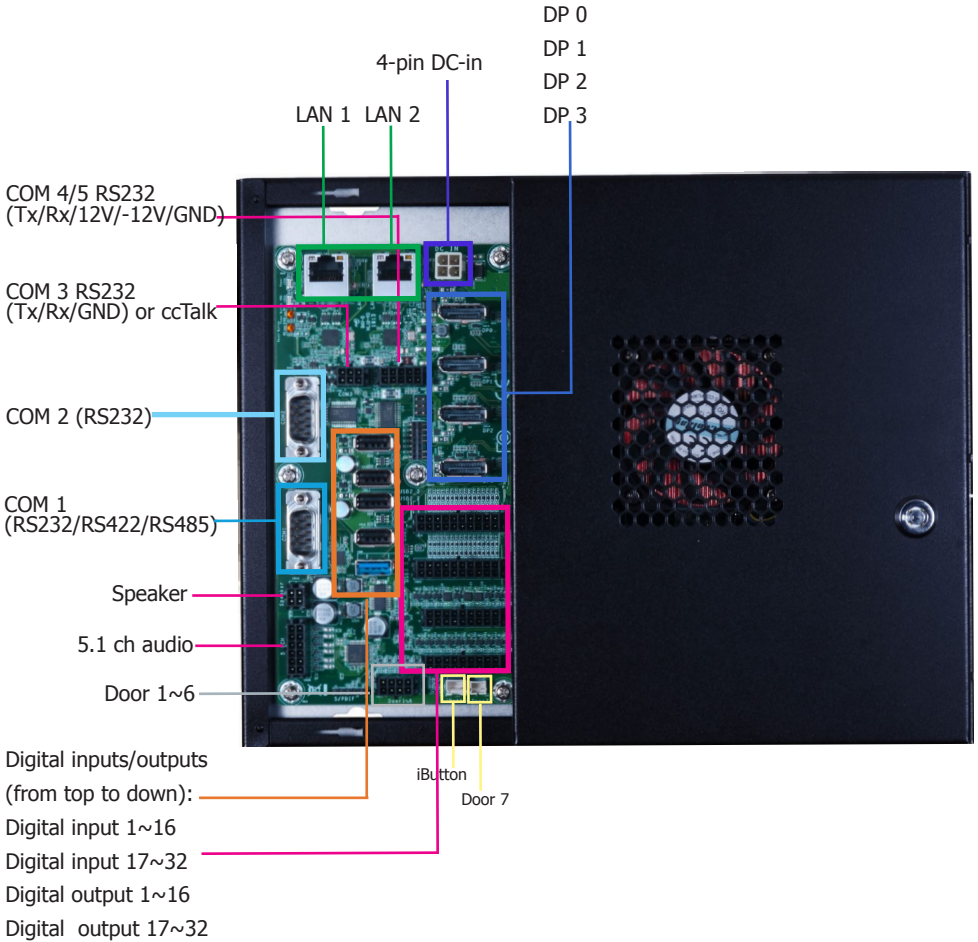| |
|---|
| • One GM341-GHF system unit |
| • Demonstration kit:
 - I/O board
 - Five I/O cables (red, blue, green, yellow, and orange)
 - A USB cable (type-A connector to type B-connector)
 - Gaming software package |

Note:
The software package that came with the system contains application and code samples to implement gaming software for the system.

Ports and Connectors

DP 0
DP 1
DP 2
DP 3

4-pin DC-in

LAN 1 LAN 2

COM 4/5 RS232
(Tx/Rx/12V/-12V/GND)

COM 3 RS232
(Tx/Rx/GND) or ccTalk

COM 2 (RS232)

COM 1
(RS232/RS422/RS485)

Speaker

5.1 ch audio

Door 1~6

Digital inputs/outputs
(from top to down):
Digital input 1~16
Digital input 17~32
Digital output 1~16
Digital output 17~32

iButton

Door 7

⊙ Connecting the I/O Board

The system supports 32 digital inputs and outputs. The I/O board that came with the package can be connected to the system to test the digital input and output function. Please observe the following guidelines and follow the procedure to connect the I/O board.

1. Make sure the system and all other peripheral devices connected to it have been powered off.

2. Disconnect all power cords and cables.

3. Connect one end of the USB cable (type-A connector) to the system and the other end of the USB cable (type-B connector) to the I/O board.

4. Connect the I/O board to the system's intrusion detection connector (labeled door 1~6) using the red cable.

5. Connect the I/O board to the system's DIO port (labeled DO: 17~32) using the blue cable.

6. Connect the I/O board to the system's DIO port (labeled DO: 1~16) using the green cable.

7. Connect the I/O board to the system's DIO port (labeled DI: 17~32) using the yellow cable.

8. Connect the I/O board to the system's DIO port (labeled DI: 1~16) using the orange cable.

Orange DI: 1~16
Yellow DI: 17~32
Green DO: 1~16
Blue DO: 17~32
Red: Door 1~6
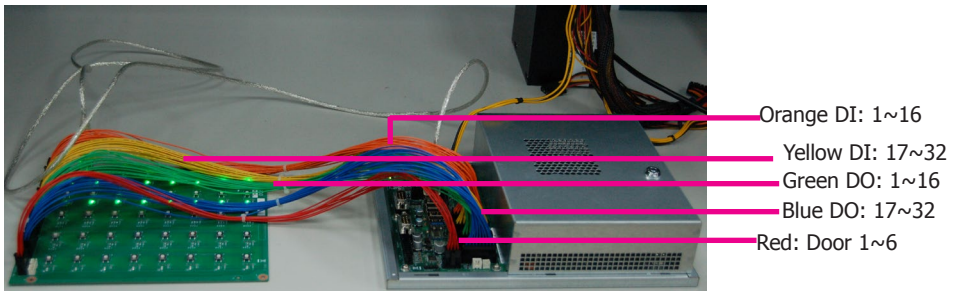
The tact buttons on the I/O board can be used to invoke a door intrusion event or set the high/low level of a digital I/O port. You can also use the demonstration application to alter a digital I/O port's level. For more information, please refer to the software application guide.

# Powering on the System and Connecting the Display

To power on the system, simply connect the 4-pin power cable to the system and the system will be automatically powered on. If you want to use a power or a reset switch (tact button), they are located on the system board as shown in the following picture.

To connect the display, use a DisplayPort cable to connect one of the DP ports to a display device.

4-pin DC-in

Power LED
HDD LED
Power Button
Reset Button

DP 0
DP 1
DP 2
DP 3
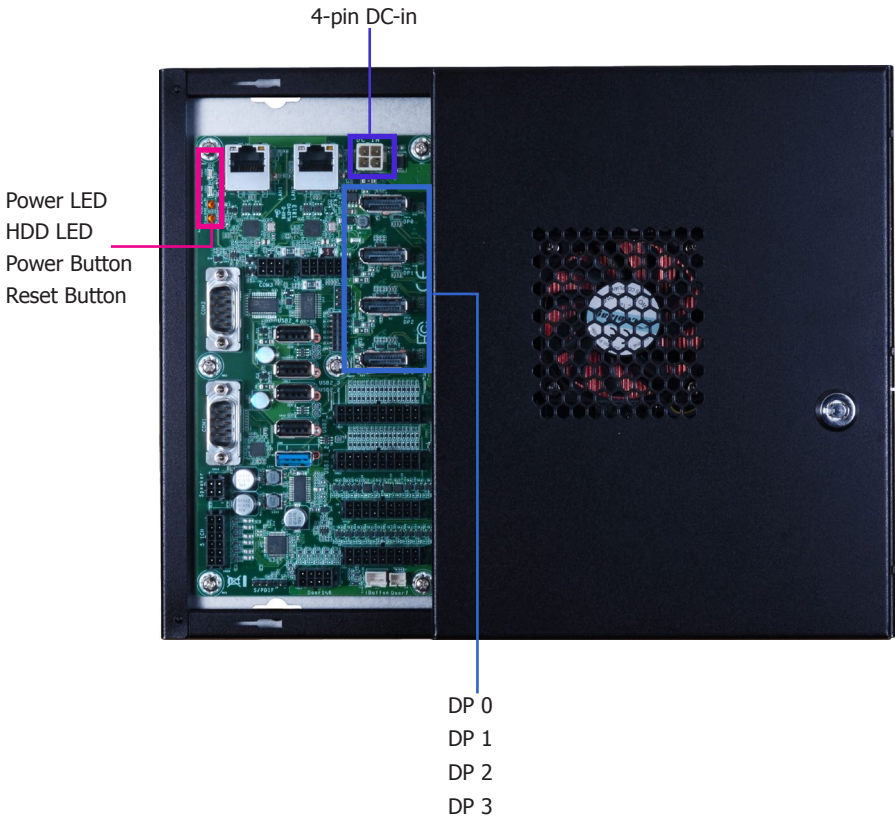
Board Layout and Jumper Settings
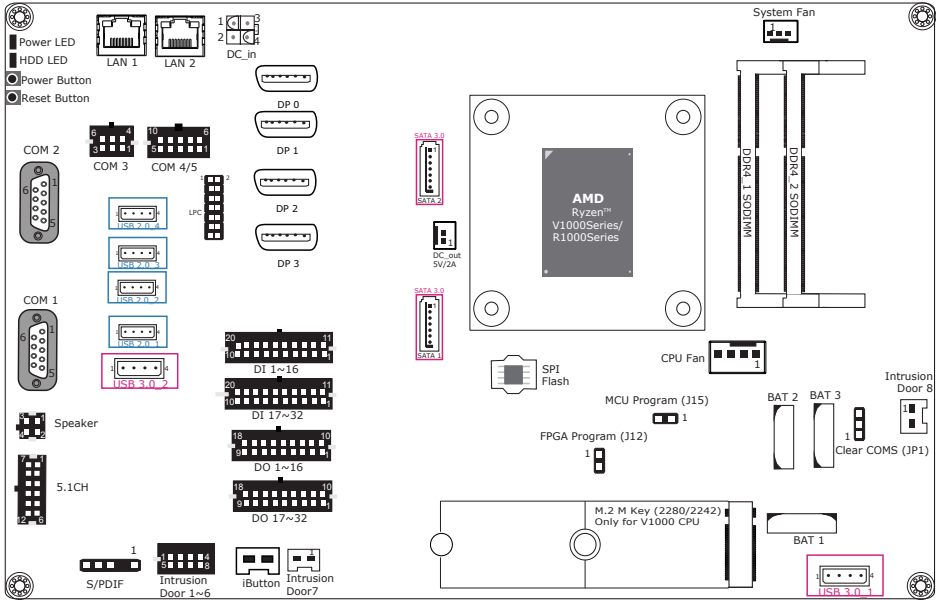
Clear CMOS Data	JP1
Normal (default)	1-2 On
Clear CMOS Data	2-3 On

FPGA Programming Mode	J12
F.W. update programmable	1-2 On
Protective mode	None

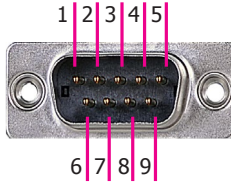| MCU Programming Mode	J15
F.W. update programmable	1-2 On
Protective mode	None

Connector Pin Assignment

COM 1: RS232/RS422/RS485

COM 2: RS232

Pins	RS232	RS232	RS485
1	DCD	TX-	DATA-
2	RXD	TX+	DATA+
3	TXD	RX+	NC
4	DTR	RX-	NC
5	GND	GND	GND
6	DSR	N.C	NC
7	RTS	N.C	NC
8	CTS	N.C	NC
9	RI	N.C	NC

COM 3: RS232 (Tx/Rx/GND/ccTalk)

Pins	Pin Assignment
1	COM3 RS232-TX
2	COM3 RS232-RX
3	GND
4	+12V power out
5	ccTalk
6	GND

DC-out

Pins	Pin Assignment
1	+5V DC power out
2	GND

4-pin Speaker

Pins	Pin Assignment
1	SPK-R
2	SPK-L
3	GND
4	GND

S/PDIF

Pins	Pin Assignment
1	+5V
2	NC
3	SPOUT
4	GND
5	SPIN

COM 4/5: RS232 (Tx/Rx/±12V/GND)

Pins	Pin Assignment
1	COM4 RS232-TX
2	COM4 RS232-RX
3	+12V power out
4	-12V power out
5	GND
6	COM5 RS232-TX
7	COM5 RS232-RX
8	+12V power out
9	-12V power out
10	GND

5.1ch Audio

Pins	Pin Assignment	Pins	Pin Assignment
1	LINEOUT-L	7	LINEOUT-R
2	GND	8	GND
3	CENOUT-L	9	LFEOUT-R
4	GND	10	GND
5	SIDEOUT-L	11	SIDEOUT-R
6	GND	12	GND

DC-in

Pins	Pin Assignment	Pins	Pin Assignment
1	GND 1	3	12V2
2	GND 2	4	12V1

Intrusion Door 1~6

Pins	Pin Assignment	Pins	Pin Assignment
1	Door 1	5	Door 5
2	Door 2	6	Door 6
3	Door 3	7	GND
4	Door 4	8	GND

Digital Input 1~16/17~32

Pins	Pin Assignment	Pins	Pin Assignment
1	DI 1 / DI 17	11	DI 11 / DI 27
2	DI 2 / DI 18	12	DI 12 / DI 28
3	DI 3 / DI 19	13	DI 13 / DI 29
4	DI 4 / DI 20	14	DI 14 / DI 30
5	DI 5 / DI 21	15	DI 15 / DI 31
6	DI 6 / DI 22	16	DI 16 / DI 32
7	DI 7 / DI 23	17	GND
8	DI 8 / DI 24	18	GND
9	DI 9 / DI 25	19	GND
10	DI 10 / DI 26	20	GND

Digital Output 1~16/17~32

Pins	Pin Assignment	Pins	Pin Assignment
1	DO 1 / DO 17	11	DO 10 / DO 26
2	DO 2 /DO 18	12	DO 11 / DO 27
3	DO 3 / DO 19	13	DO 12 / DO 28
4	DO 4 / DO 20	14	DO 13 / DO 29
5	DO 5 / DO 21	15	DO 14 / DO 30
6	DO 6 / DO 22	16	DO 15 / DO 31
7	DO 7 / DO 23	17	DO 16 / DO 32
8	DO 8 / DO 24	18	GND
9	DO 9 / DO 25	19	GND