ADVANTECH

MIC-75G20-10B1
GPU Card Expansion i-Module for MIC-7 Series Embedded System
Startup Manual

Packing List

Before you begin installing your i-Module, please make sure that the following items have been shipped:

1. MIC-75G20 i-Module x 1   P/N: MIC-75G20-10B1
2. 4-pin Phoenix connector x 2   P/N: 1652003234
3. SATA cable (30 cm) x 1   P/N: 1700017838
4. SATA cable (40 cm) x 1   P/N: 1700020978-01
5. HDD BP power cable x 1   P/N: 1700024985-01
6. GPU power cable (6 to 6/8 pin) x 2   P/N: 1700023022-01
7. Mounting bracket (L)   P/N: 1960005359T00A
8. Mounting bracket (R)   P/N: 1960094392N013
9. Screw for mounting bracket x 6   P/N: 1930007259-01
10. MIC-75G20 Startup Manual x 1   P/N: 20415G2011

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note: Acrobat Reader is required to view any PDF file. Acrobat Reader can be downloaded at: get.adobe.com/reader (Acrobat is a trademark of Adobe).

Specifications

PCIe Slots

- One PCIe x16 socket
- One PCIe x4 socket

For more information on this and other Advantech products, please visit our website at:

http://www.advantech.com

http://www.advantech.com/eplatform

For technical support and service, please visit our support website at:

This manual is for MIC-75G20-10 Rev. B1.

Specifications (Cont.)

Environment

- **Operating Temperature:** -10~60 °C (35W CPU w/ industrial wide-temp. RAM/SSD)
- **Storage Temperature:** -40~85 °C (-40~185 °F)
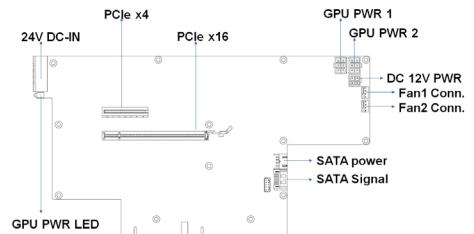- **Relative Humidity:** 95% @ 40 °C (non-condensing)

Mechanical

- **i-Module Dimensions:** i-Module Dimension (W x H x D): 130 x192 x 385 mm
- **With MIC-7 Series:** With MIC-7 series (W x H x D): 207 x 192 x 385 mm
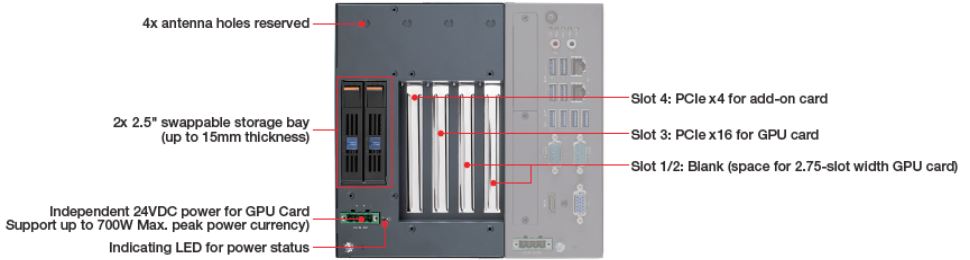
Note: Width will be increased by 4 mm with MIC-77xx.

I/O Connectors

Connectors		
No.	Item	Function
1	DCIN1	$24V_{DC}$ in
2	PPCIE1	PCIe x16 slot
3	PPCIE2	PCIe x4 slot
4	SATAPWR1	4-pin SATA power connector (5V)
5	SATA1	SATA signal connector
6	GPUPWR1	6-pin power connector for GPU card (12V, 17A)
7	GPUPWR2	6-pin power connector for GPU card (12V, 17A)
8	DC12VOOUT1	4-pin power connector (12V, 5A)
9	SYSFAN1	4-pin fan connector
10	SYSFAN2	4-pin fan connector (reserved)
11	LED	GPU card power status

Front View

- 4x antenna holes reserved
- 2x 2.5" swappable storage bay (up to 15mm thickness)
- Independent 24VDC power for GPU Card Support up to 700W Max. peak power currency)
- Indicating LED for power status
- Slot 4: PCIe x4 for add-on card
- Slot 3: PCIe x16 for GPU card
- Slot 1/2: Blank (space for 2.75-slot width GPU card)

Simple Maintenance Process

System Installation

MIC-75G20 can be assembled with all MIC-7 series IPC systems.

1. Undo the MIC-7 series system screws and remove the bottom cover.
2. Remove the 2 dust covers **(IMPORTANT!)**.
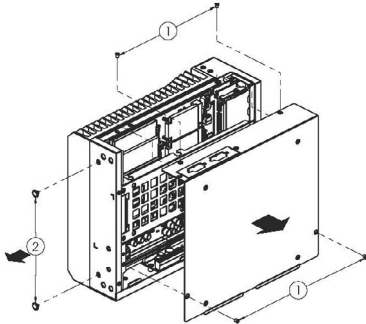
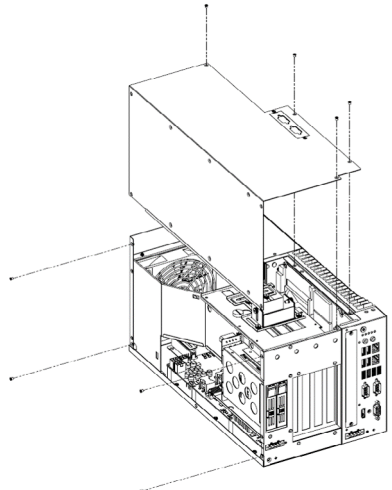3. Undo the 4 screws on MIC-75G20.
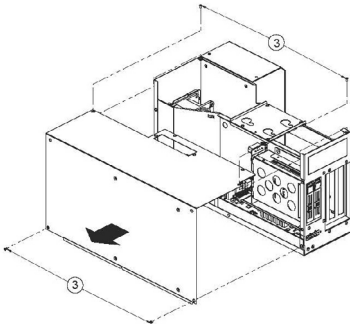
Simple Maintenance Process (Cont.)

4. Align MIC-75G20 and MIC-7 and secure the 4 screws.
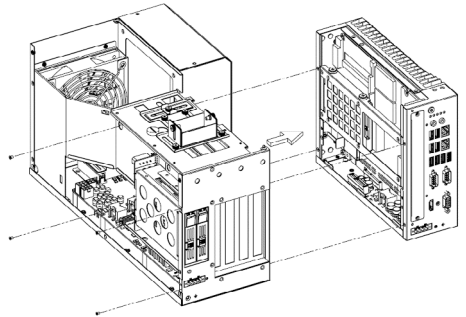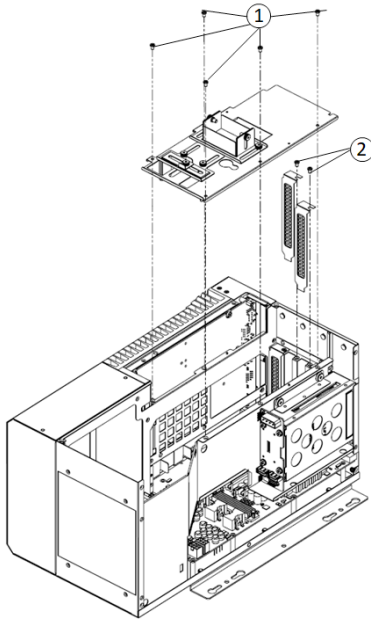

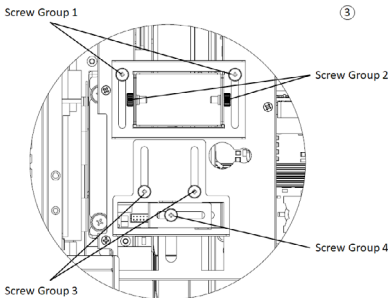5. Assemble the MIC-75G20 cover and secure with 6 screws.

6. Reassemble the cover and secure with screws.

GPU Card Bracket Assembly

1. Undo the 5 screws on the top of the GPU card bracket module.
2. Remove the adapter bracket to make space for the GPU card.

3. Release screw groups 1, 2, 3, and 4 for further GPU card installation.

Memo: If the GPU card has two screw holes on the rear side, please follow the assembly instructions. If not, please skip steps 4 and 5.

4. Undo the screws in group 5 to remove the GPU rear bracket.

GPU Card Bracket Assembly (Cont.)

5. Assemble the GPU rear bracket to the GPU with 2 screws and reassemble the chassis with the group 5 screws.

Memo: The GPU rear bracket can be adjusted to fit the different heights of GPU cards by releasing the screws in group 5.
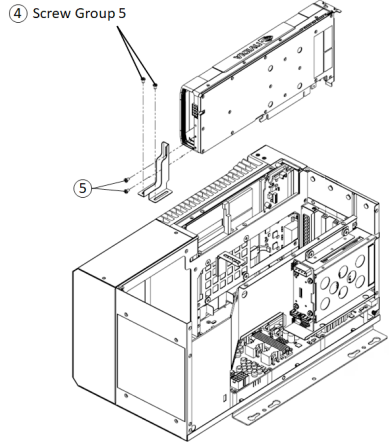

6. After the GPU card has been installed, secure 2 screws to the bracket of the GPU.
7. Secure the GPU to the adjustable GPU card bracket module with 5 screws.
8. Secure the GPU card by adjusting the GPU card bracket module.
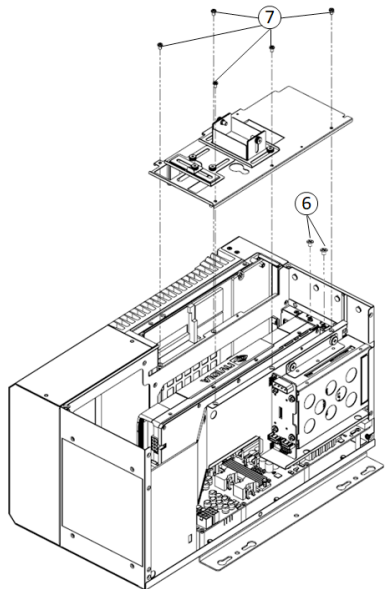
GPU Card Bracket Assembly (Cont.)

9. Release screw group 1 to adjust bracket A to the optimal position to attach the GPU card.
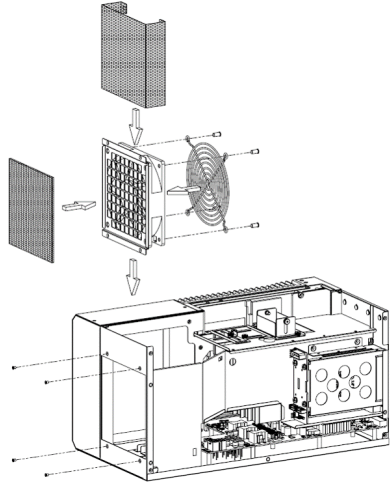10. Release screw group 2 to adjust bracket A to optimal height to secure the GPU Card.
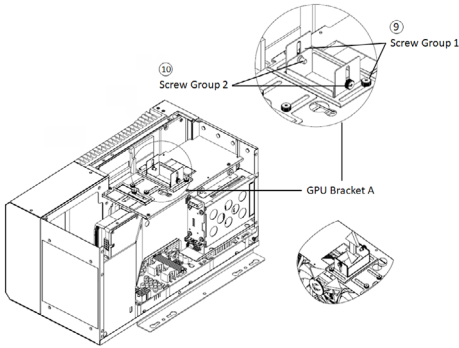
11. Release screw group 3 to adjust bracket B to the optimal position to clamp the GPU card.
12. Release screw group 4 to adjust the bracket B width to secure the front and back side of the GPU Card.
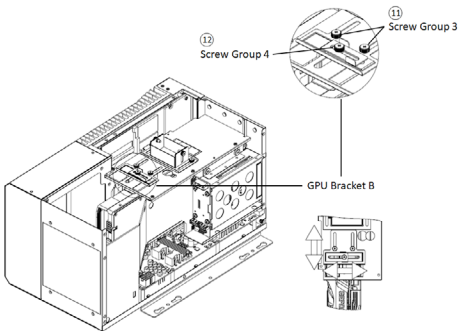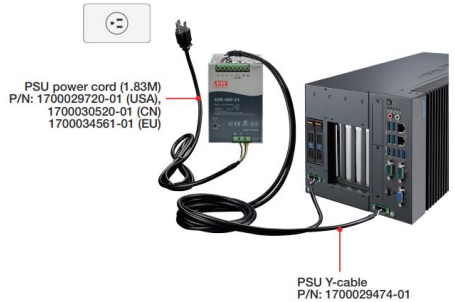

Fan Filter Replacement

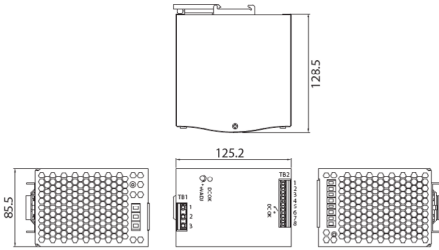It is recommended to replace the fan filter regularly to ensure the stability of system cooling.

1. Undo the system cover and remove the old fan filter.
2. Change to a new fan filter and reassemble the system cover with screws.

Power Supply Cabling Guide

PSU power cord (1.83M)
P/N: 1700029720-01 (USA),
1700030520-01 (CN)
1700034561-01 (EU)

PSU Y-cable
P/N: 1700029474-01

Power Supply Cabling Guide (Cont.)

128.5

125.2

85.5

TB1 · TB2

TB2 pin-out
(connect from PSU DC to MIC)

Pin No.	Assignment
1, 2	DC OUTPUT+V
3, 4	DC OUTPUT-V
5, 6	Relay Contact
7, 8	NC

TB1 pin-out
(connect from AC to PSU)

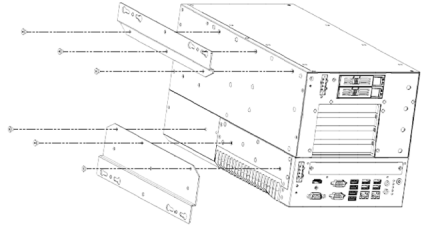| Pin No.	Assignment
1	FG ⏚
2	AC/N
3	AC/L

Y type cable

Connect from PSU to the MIC-7000 and MIC-75G20 via optional PSU Y-cable with 2x 4-pin phoenix connector (1652003234)

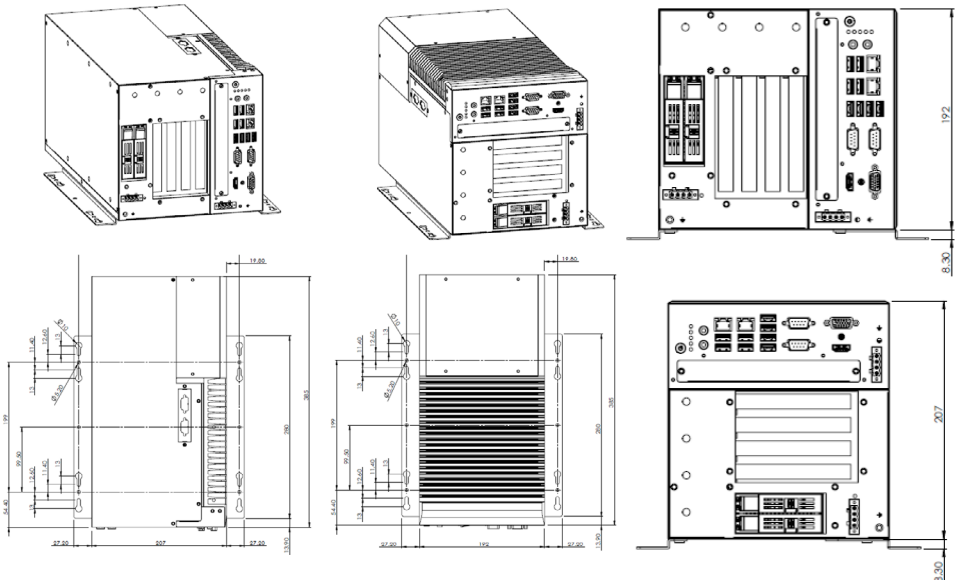## Mounting Bracket Assembly

1. Type 1: Secure 1 x mounting bracket (L) (1960005359T00A) and 1 mounting bracket (R) (1960094392N013) with 6 screws (1930007259-01).

2. Type 2: Secure 1 mounting bracket (L) (1960005359T00A) and 1 mounting bracket (R) (1960094392N013) with 6 screws (1930007259-01).
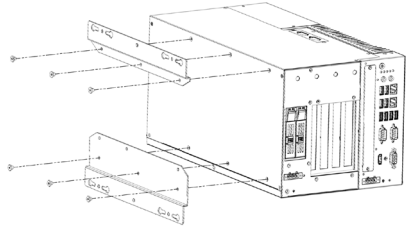
System Dimensions

* Width is 207 mm with MIC-77xx installed.