MIC-78 i-Module Series

Expansion Module for MIC-78 Series



Features

- Flexible expansion via PCIe/PCI slot
- PCIe speed up to Gen5 high speed
- MIC-78 series compatible
- Optional smart fan for thermal optimization
- Provide additional 12Vdc power source for add-on card
- Maximum 85W for add-on card power consumption
- Support 250W power PCIe GPU and 80W MXM GPU by GPU i-Module
- Expansion for 2.5" and 3.5" HDD/SSD bay
- 2 x 2.5" Swappable HDD/SSD supported

Introduction

MIC i-Module Series provide flexible expansion function for MIC-78 Series system. MIC i-Module Series support PCIe/PCI I/F add-on card, such as frame grabber, GPU and motion control cards, etc.. Except for the power from PCIe/PCI slot, i-Module reserves additional 12VDC power via the on-board connector for cards that need more power. To better control over the heat generated from add-on cards, optional system fans are supported with intelligent Smart Fan feature for better thermal management. With additional HDD/SDD bays in i-Module, customer can have more rooms for massive data storage. Removable storage bays are also supported.

Compatible Table

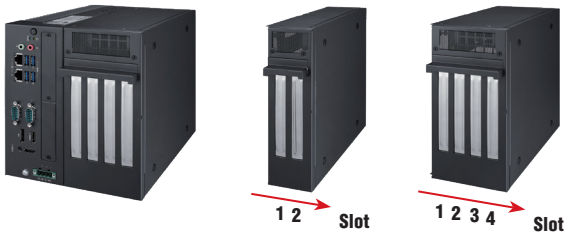
i-Module / MIC-780 series		1 slot	2 slot			4 slot	
		MIC-78M10	MIC-78M20	MIC-78M20-01	MIC-78M11	MIC-78M40-01	MIC-78M13
							
MIC-780	W SKU	✓	✓	✓	✓	✓	✓
	H SKU	✓	✓	–	✓	–	✓
MIC-785		✓	✓	✓	✓	✓*	✓

i-Module / MIC-780 series		Featured	
		MIC-78MG30	MIC-78MG30
			
MIC-780	W SKU	✓	✓
	H SKU	✓	✓
MIC-785		✓**	✓***

* When MIC-785 with MIC-78M40-01, not have 2nd slot, PCIex2 signal
** When MIC-785 with MIC-78MG30, not have 3rd slot, PCIex2 signal
*** When MIC-785 with MIC-78G30, not have 5th slot, PCIex2 signal

Selection Table

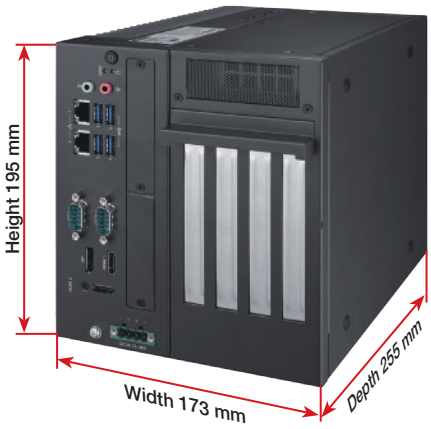
i-Module slot number starts from the inner side, as the image on the right.



iModule	MIC-78M10	MIC-78M20	MIC-78M20-01	MIC-78M11	MIC-78M40-01	MIC-78M13	MIC-78MG30	MIC-78G30
Slot 1	PCIe x16	PCIe x16	PCIe x 8	PCIe x16	PCIe x 8	PCIe x16	PCIe x16	PCIe x16
Slot 2	-	PCIe x 4	PCIe x 8	PCI	PCIe x 2	PCI	-	-
Slot 3	-	-	-	-	PCIe x 8	PCI	PCIe x 2	-
Slot 4	-	-	-	-	PCIe x 4	PCI	PCIe x 4	-
Slot 5	-	-	-	-	-	-	-	PCIe x2
Slot 6	-	-	-	-	-	-	-	PCIe x4
SATA Port and PWR (on iModule back plane)	2	2	2	2	2	2	2****	2****
2.5 HDD/SDD Bay	-	1*			2***		2 x Swappable	2 x Swappable
N.W (KG)	1.14	1.31			1.71		4.63	5
G.W (KG)	2	2.05			2.48		5.53	7
i-Mdoule W x H x D (mm)	63 x 195 x 255	83 x 195 x 255			123 x 195 x 255		200 x 195 x 355	255 x 195 x 440
MIC-78X + i-Module W x H x D (mm)	113 x 195 x 255	133 x 195 x 255			173 x 195 x 255		200 x 195 x 355	255 x 195 x 440
System Fan	-	98R1752000E**			98R1751300E**		Embedded	Embedded
12VDC Connector (Molex 2x2 connector)	-	1			1		1	1
12VDC Connector for GPU (PCIe 8in)	-	-			-		2	-
12VHPR Connector for GPU	-	-			-		-	1
Add on card Max dimension (with system Fan)	-	188 x 111 x 20			190 x 111 x 20		290 x 124 x 59	388 x 138 x 101
Add on card Max dimension length (without system Fan)	222 x 111 x 20	222 x 111 x 20			222 x 111 x 20		-	-

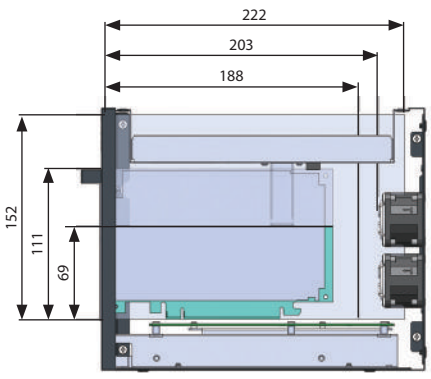
* Need to order 98R1752010E (2.5" 15mm HDD/SDD kit for 2 slots i-Module)
** Suggest to add optional system fan if power consumption of add-on card is more than 45W for better thermal management
*** support 2 * 15mm 2.5" HDD/SSD
**** link to swappable bay directly, each bay support one 15mm 2.5" HDD/SSD

Dimension Guide

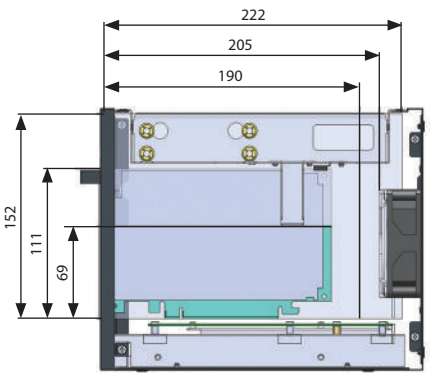


Example: MIC-780 + MIC-78M40

i-Module Add-on card Dimension Guide

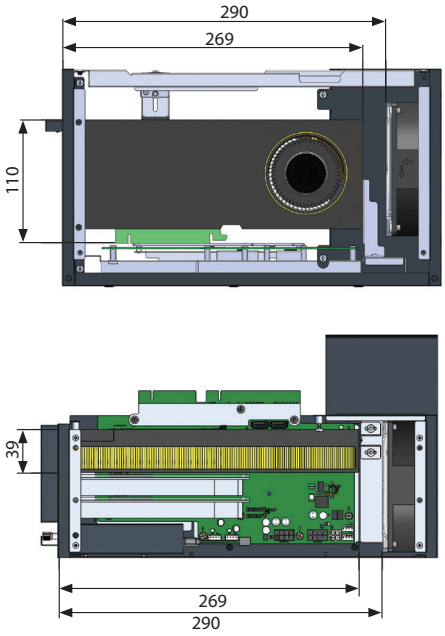


2-slot i-Module

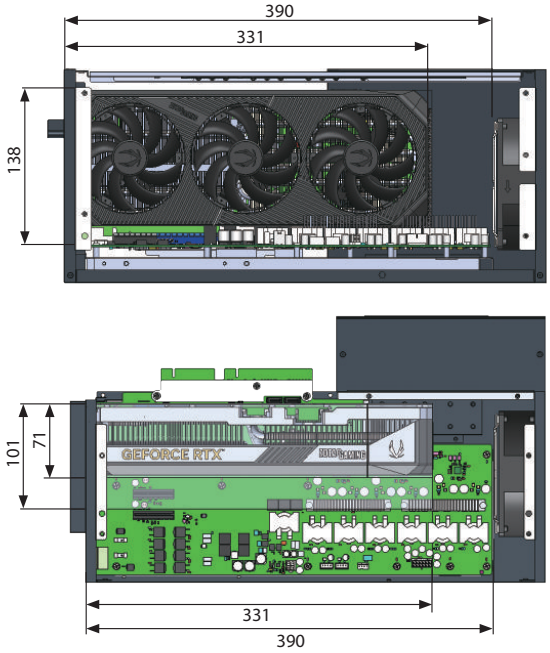


4-slot i-Module

MIC-78MG30 GPU Dimension Guide



MIC-78G30 GPU Dimension Guide

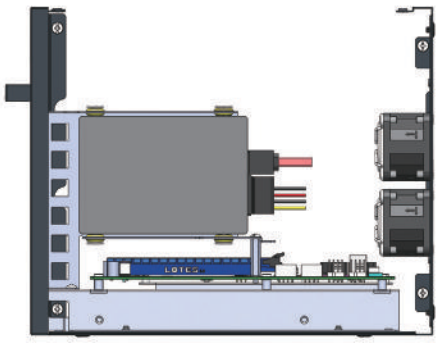


HDD/SSD Support Table

MIC-780 series		SATA port on BP	MIC-780, 785	
System SATA port count (on MB)			2	
2.5 HDD/SSD Bay in MIC			1 or 2*	
Storage type in MIC-78			SSD/HDD (7mm)	SSD/HDD (9mm/15mm)
Total 2.5" HDD/SSD, MIC-780 series + i-Module	MIC-78M10	2	2	1
	MIC-78M11	2	3**	2**
	MIC-78M20	2	3**	2**
	MIC-78M20-01	2	3**	2**
	MIC-78M13	2	4	3
	MIC-78M40-01	2	4	3
	MIC-78MG30	2	4	3
	MIC-78G30	2	4	3

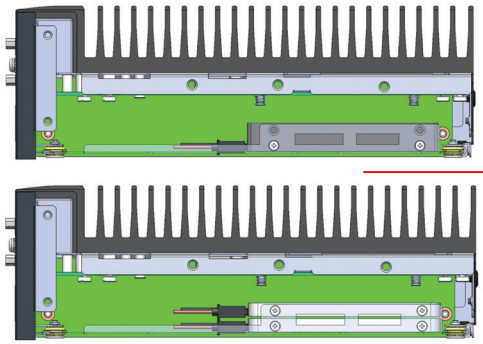
* if SSD/HDD thick is 7mm, then could install 2 * SSD/HDD on Bay, if SSD/HDD thick is 9/15mm, then only support 1 * SSD/HDD
** Need to order 98R1752010E

2.5" HDD/SSD kit for 2-slot i-Module



Ordering information: 98R1752010E
Supportable i-Module: MIC-78M20, MIC-78M20-01, MIC-78M11
Limitation: Slot 2 will be occupied
Support up to one 15mm 2.5" HDD/SSD

MIC-78 series internal SSD/HDD kit



MIC-78 series internal SSD/HDD kit Support up to 2 x 2.5" 7mm SDD/HDD or 1 x 2.5" 9.6/15mm SSD/HDD

2.5" HDD/SSD Thickness Guide

Internal HDD/SSD
Supportable i-Module:
MIC-78M40-01
Support up to 2 x 2.5"
15mm HDD/SSD



MIC-78M40-01



MIC-78MG30

Swappable HDD/SSD
Supportable i-Module:
MIC-78MG30/MIC-78G30
Support up to 2 x 2.5"
15mm HDD/SSD

Optional i-Modules*

Part Number	Description
MIC-78M10-00A1	1 slot expansion iModule (PCIex16 slots)
MIC-78M11-00A1	2 slot expansion iModule (PCIex16, PCI slots)
MIC-78M20-00A1	2 slot expansion iModule (PCIex16, PCIex4 slots)
MIC-78M20-01A1	2 slot expansion iModule (2x PCIex8 slots)
MIC-78M13-00A1	4 slot expansion module (PCIex16, 3x PCI slots)
MIC-78M40-01A1	4 slot expansion module (4 x PCIe slots)
MIC-78MG30-00A1	3 slot expansion module (3 x PCIe slots, GPU 250 watt)
MIC-78G30-00A1	3 slot expansion module (3 x PCIe slots, GPU 600 watt)

*Please refer to MIC-78MG30 datasheet for more product information.

Optional Accessories

Part Number	Description	Mark
98R1751300E	8cm fan for 4slot iModules	
98R1752000E	2 x 4cm fan for 2slot iModules	
98R1752010E	2.5" HDD/SSD kit for 2slot iModule	
1700024858-01	4-pin 12VDC power cable (15cm, for PoE card)	
For MIC-78MG30/MIC-78G30		
96PSD-A480W24-MS	DIN RAIL PSU 100-240V 480W 24V (Peak power 720W, 3 Sec.)	480W PSU
1700031170-01	DC-DC power cord, A cable TEM*4/TEM*4 UL2464 18AWG 150cm	DC-DC cable connect from PSU DC to MIC for 480W PSU
XMIC-HRPG-1000-24	OPEN FRAME A/D 100-240V 1008W 24V	1000W PSU
1700031413-01	PSU DC-DC power cable, 1M	DC-DC cable connect from PSU DC to MIC for 1000W PSU
1700029720-01	PSU power cord (USA), AC Conn., 3-pin, 10A, 125V, UL/CSA, 1.83M	AC cable (USA)
1700030520-01	PSU power cord (CN), AC Conn., 3-pin, 10A, 250V, CCC, 1.5M	AC cable (CN)
1700034561-01	M cable Type E 3P/TEMx3 80CM (EU)	AC cable (EU)
1700022074-11	4-pin 12VDC power cable (40cm)	Power cable for PoE card