

MIC-770 V3

紧凑型无风扇系统

Intel 12/13/14代Core i 处理器
Intel Core 处理器（第二代）

NEW



特性

- Intel® 12th/13th/14th Gen Core™ i CPU socket-type (LGA1700) with Intel® R680E/H610E 芯片组
- 宽温工作 (-20 ~ 60 °C)
- VGA and HDMI 输出
- 2 x GigaLAN, 2 x USB 3.2 (Gen2) and 6 x USB 3.2 (Gen1)
- 2 x RS-232/422/485 and 4 x RS232 串口 (可选)
- 1 x 2.5" HDD/SSD, 1 x mSATA, and 1 x NVMe M.2
- 9 ~ 36 V_{DC} 输入电压
- IP40 防尘防水
- 支持 FlexIO 与 iDoor 技术, 灵活可配置额外的 HDMI, DP, DVI, COM, DIO, 远程开关 IO
- 支持研华 i-Modules
- 支持研华 SUSI API 与嵌入式软件 APIs
- 支持 Intel® vPro™/AMT 与 TPM 技术
- 支持 Advantech iBMC 1.2 DeviceOn 远程带外电源管理解决方案



技术规格

Intel® Core™ 处理器第二代 (Bartlett Lake-S)	CPU	251E	251TE	221E	221TE	211E	211TE	211EF	201E	201TE	300	300T		
	P-core 基频	2.1 GHz	1.4 GHz	2.7 GHz	1.8 GHz	2.7 GHz	1.7 GHz	2.7 GHz	3.6 GHz	2.9 GHz	3.9 GHz	3.4 GHz		
	L3 缓存	36 MB	36 MB	24 MB	24 MB	20 MB	20 MB	20 MB	12 MB	12 MB	6 MB	6 MB		
	核心	24	24	14	14	10	10	10	4	4	2	2		
	基准功耗	65W	45W	65W	45W	65W	45W	65W	60W	45W	46W	35W		
	芯片组	R680E/H610E												
BIOS	AMI 256Mb SPI Flash													
14 th 代 处理器	CPU	i9-14900	i7-14700	i5-14500	i5-14400	i5-14400F	i3-14100	300	i9-14900T	i7-14700T	i5-14500T	i5-14400T	i3-14100T	300T
	P-core 基频	2.0 GHz	2.1 GHz	2.6 GHz	2.5 GHz	2.5 GHz	3.5 GHz	3.9 GHz	1.1 GHz	1.3GHz	1.7 GHz	1.5 GHz	2.7 GHz	3.4 GHz
	L3 缓存	36 MB	33 MB	24 MB	20 MB	20 MB	12 MB	6 MB	36 MB	33 MB	24 MB	20 MB	12 MB	6 MB
	核心	24	20	14	10	10	4	2	24	20	14	10	4	2
	基准功耗	65 W	65 W	65 W	65 W	65 W	60 W	46 W	35 W	35 W	35 W	35 W	35 W	35 W
	芯片组	R680E/H610E												
BIOS	AMI 256Mb SPI Flash													
13 th 代 处理器	CPU	i9-13900(E)	i7-13700(E)	i5-13500(E)	i5-13400(E)	i3-13100(E)	i9-13900TE	i7-13700TE	i5-13500TE	i3-13100TE				
	P-core 基频	2.0 GHz	2.1 GHz	2.5 GHz	2.5 GHz	3.4 GHz	1.0 GHz	1.4 GHz	1.6 GHz	2.5 GHz				
	L3 缓存	36 MB	30 MB	24 MB	20 MB	12 MB	36 MB	30 MB	24 MB	12 MB				
	核心	24	16	14	10	4	24	16	14	4				
	基准功耗	65W	65W	65W	65W	60W	35W	35W	35W	35W				
	芯片组	R680E/H610E												
BIOS	AMI 256Mb SPI Flash													
12 th 代 处理器	CPU	i9-12900(E)	i7-12700(E)	i5-12500(E)	i3-12100(E)	G7400E (46W)	G6900E (46W)	i9-12900TE	i7-12700TE	i5-12500TE	i3-12100TE	Pentium G7400TE	Celeron G6900TE	
	核心/线程数	16/24	12/20	6/12	4/8	2/4	2/2	16/24	12/20	6/12	4/8	2/4	2/2	
	基频	2.30 GHz	2.10 GHz	2.90 GHz	3.20 GHz	3.60 GHz	3.00 GHz	1.10 GHz	1.40 GHz	1.90 GHz	2.10 GHz	3.00 GHz	2.4 GHz	
	最大睿频	5.00 GHz	4.80 GHz	4.50 GHz	4.20 GHz			4.80 GHz	4.60 GHz	4.30 GHz	4.00 GHz			
	L3 缓存	30 MB	25 MB	18 MB	5 MB	2.5 MB	2.5 MB	30 MB	16 MB	12 MB	6 MB	2.5MB	2.5MB	
	基准功耗	65W	65W	65W	65W	65W	65W	35W	35W	35W	35W	35W	35W	
芯片组	R680E/H610E													
BIOS	AMI 256Mb SPI Flash													
内存	技术	Dual-channel DDR5 4800 MHz (R680E SKU supports ECC)												
	插槽	2 x 262-pin DDR5 SODIMM (up to 64GB per socket)												
	最大容量	128GB												
显示	芯片组	Core i: Intel® UHD Graphics 770 Pentium/Celeron: Intel® HD Graphics 710												
	VGA	1 x DB15, up to 1920 x 1200 maximum resolution												
	HDMI	1 x HDMI, up to 4096 x 2160@30Hz												
	多显	R680E: 4 x independent displays (third and fourth display output via optional cable) H610E: 3 x independent displays (third display output via optional cable)												
以太网	控制器	R680E LAN1: Intel® I219LM, LAN2: Intel® i210IT H610E LAN1: Intel® I219V, LAN2: Intel® i210IT												
	接口	2 x RJ45												
存储	HDD	1 x 2.5" HDD/SSD (up to 2 x 2.5" SSD by optional kit; 2 x 3.5" HDD by i-Module)												
	mSATA	1												
	NVMe M.2	1 x M Key 2280 with PCIe Gen 4 x 4 (R680E SKU, operating temp. -20 ~ 50 °C)												
	RAID	0/1/5/10 (R680E SKU only)												
I/O	USB	R680E: 2 x USB3.2 (Gen2), 6 x USB3.2 (Gen1), 1 x USB 2.0 (Internal) H610E: 4 x USB3.2 (Gen1), 4 x USB2.0												
	串口	2 x DB9, RS-232/422/485 support auto flow control; 4 x RS-232 (Optional)												
	音频	2 (1 x line out and 1 x mic in)												

注 1: 根据英特尔设计规范, 该 CPU PCIe 插槽仅支持显卡。其他类型的附加卡在此插槽上无法实现任何功能
注 2: 对于 65 瓦 (65W) 的 CPU, 其工作温度最高可支持至 50 摄氏度; 当系统持续满载运行时, 可能会出现热节流 (降频) 现象。可通过基本输入输出系统 (BIOS) 调整 CPU 的电源配置, 以提高其工作温度上限。

技术规格(Cont.)

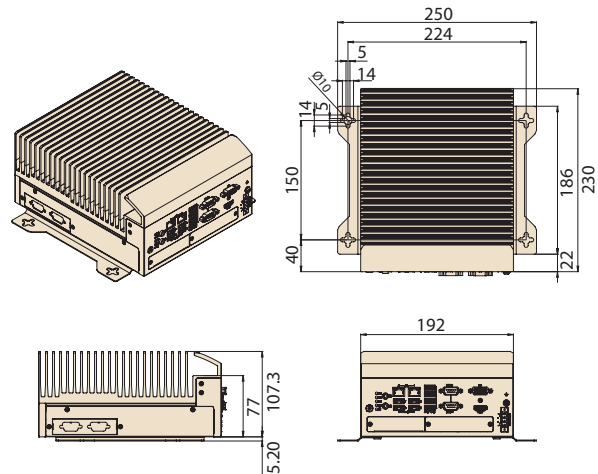
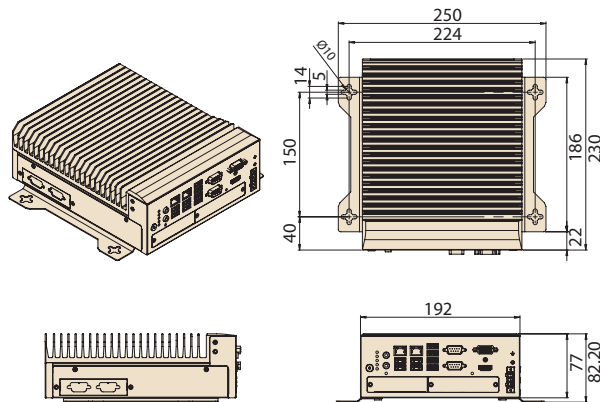
扩展	PCIe 插槽	支持研华MIC-75 系列 i-module, 请参考 i-Modules		
	Mini PCIe/mSATA	R680E: 1 x mini PCIe, 1 x mini PCIe/mSATA H610E: 1 x mini PCIe, 1 x mSATA		
LED&开关	LED	2 (1 x Storage and 1 x Power), 4 for COM1 TX/RX and COM2 TX/RX		
	按钮	1 x Power on/off switch		
	远程开关	Yes, 2pin terminal block (Optional)		
电源	类型	ATX/AT		
	输入电压	9 ~ 36 V _{DC}		
	功耗	Typical: 45.7W Maximun: 108W		
看门狗定时器	输出	System reset		
	间隔	Programmable 1 ~ 255 sec/min		
环境	温度	65W CPU w/ industrial wide Temp. SSD	35W CPU w/ industrial wide Temp. SSD	Non-operating
		Standard: -20 ~ 50°C with 0.7 m/s air flow	Standard: -20 ~ 60°C with 0.7 m/s air flow	-40 ~ 85°C
		Extreme: -20 ~ 35°C without air flow	Extreme: -20 ~ 50°C without air flow	-40 ~ 85°C
	湿度	95% @ 40 °C (non-condensing)		
	振动	With SSD: 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 1 Grms @ 5 ~ 500 Hz, random, 1 hr/axis		
	冲击	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration		
物理特性	尺寸 (W x H x D)	Standard: 77 x 192 x 230 mm (3.07" x 7.55" x 9.05")		Extreme: 107.3 x 192 x 230 mm (4.22" x 7.55" x 9.05")
	重量	Standard: 2.8 kg (6.17 lbs)		Extreme: 4.5 kg (9.92 lbs)
	安装方式	桌上型/壁挂式		
认证	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	CB/UL, CCC, BSMI		
OS 支持	Windows 11, Windows 10, Windows 10 IoT, Linux OS			

尺寸

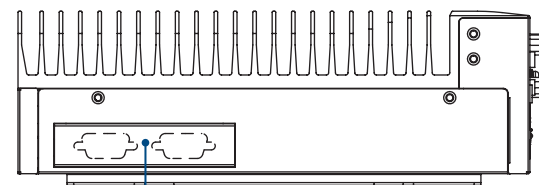
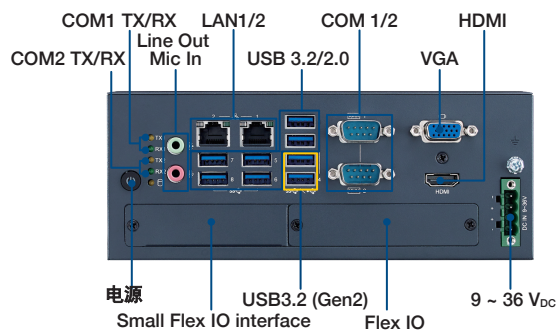
单位: mm

标准版 (MIC-770V3x-00A1)

Extreme (MIC-770V3x-E0A1)



前视图



iDoor or 2 x RS-232 扩展槽

订购信息

料号	COO	VGA	HDMI	2.5" HDD/SSD	mSATA	NVMe M.2	USB3.2 (Gen2)	USB3.2 (Gen1)	USB 2.0	Ethernet	COM	PCIe	电压
MIC-770V3W-00A1	China	1	1	1	1	1	2	6	0	2	2, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V _{bc}
MIC-770V3W-00A2U	China/Taiwan	1	1	1	1	1	2	6	0	2	2, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V _{bc}
MIC-770V3W-E0A1	China	1	1	1	1	1	2	6	0	2	2, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V _{bc}
MIC-770V3H-00A1	China	1	1	1	1	0	0	4	4	2	2, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V _{bc}
MIC-770V3H-E0A1	China	1	1	1	1	0	0	4	4	2	2, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V _{bc}

* MIC-770V3H 不支持MIC-75M20-01与MIC-75G30

** 请使用 NVMe module 不带散热片

包装清单

料号	描述	数量
MIC-770 V3	MIC-770 V3 bare system	1
2041077050	MIC-770 V3 startup manual (ENG+TC+SC)	1
1652003234	4-pin Phoenix power connector	1
1960070543T00A	2 x Mounting bracket	2
1700013095-01	SATA cable	1
1700024372-01	SATA power cable	1
2170000093-01	CPU thermal grease	1
1990019498N000	RAM thermal pad	2

可选 i-Modules*

料号	描述
MIC-75M10-00A2	1-slot expansion module (1 x PCIe)
MIC-75M11-00B1	2-slot expansion module (1 x PCIe and 1 x PCI slots)
MIC-75M13-00B1	4-slot expansion module (1 x PCIe and 3 x PCI slots)
MIC-75M20-00C1	2-slot expansion module (2 x PCIe slots)
MIC-75M20-01A2**	2-slot expansion module (2 x PCIe slots)
MIC-75M40-01A2**	3-slot expansion module (3 x PCIe slots)
MIC-75G20-10C1	GPU card expansion module (2 x PCIe and 2 x removable 2.5" storage bay)
MIC-75G30-00C1**	Dual GPU card expansion module (3 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 1 x DP)
MIC-75GF10-00A1	MXM GPU expansion module (1 x MXM, 1 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 3 x DP)
MIC-75S00-00A1	2 x removable 2.5" storage bay
MIC-75S20-00A2	2-slot expansion storage module (2 x PCIe and 2 x removable 2.5" storage bay)
98R17520301	2 x 3.5" HDD kit

*Please refer to i-Module datasheet for more detail.

** R680E SKU only

嵌入式 OS

料号	描述
20706W1H1S0038	img W11 24HL MIC-770V3W 64b 24H2 ENU
20706W1V1S0038	img W11 24VL MIC-770V3W 64b 24H2 ENU
20706W1E1S0038	img W11 24EL MIC-770V3W 64b 24H2 ENU
20706W1H1S0041	img W11 24HL MIC-770V3H 64b 24H2 ENU
20706W1V1S0041	img W11 24VL MIC-770V3H 64b 24H2 ENU
20706W1E1S0041	img W11 24EL MIC-770V3H 64b 24H2 ENU
20706WX1HS0049	img W10 21HL MIC-770V3W 64b 21H2 ENU
20706WX1VS0049	img W10 21VL MIC-770V3W 64b 21H2 ENU
20706WX1ES0049	img W10 21EL MIC-770V3W 64b 21H2 ENU
20706WX1HS0058	img W10 21HL MIC-770V3H 64b 21H2 ENU
20706WX1VS0058	img W10 21VL MIC-770V3H 64b 21H2 ENU
20706WX1ES0058	img W10 21EL MIC-770V3H 64b 21H2 ENU
20706U22DS0021	img UbuntuD MIC-770V3W 64b 22.04 ENU

可选附件

料号	描述
适配器	
96PSA-A230W24P4-3	ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 4P
1702002600	Power cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
170000237-31	Power Cord PSE 3P 12A 125V 183cm
1702002605	Power Cord (EU), 3-pin, 10A, 250V 1.83M, 90D
Din Rail PSU	
96PSD-A240W24-MN*	A/D 100-240V 240W 24V NDR DIN RAIL
1700031170-01	DC-DC power cord, A cable TEM*4/TEM*4 UL2464 18AWG 150cm
1700029720-01	AC-DC power cord (US), M cable AC CONN 3P 183cm
1700030520-01	AC-DC power cord (CN), M cable conn 3P CCC 10A 250V 150cm
1700034561-01	AC-DC power cord (EU), M cable Type E 3P/TEMx3 80CM

Note:

- MIC-770 V3 支持研华iDoor模块 (both MOS and PCM series), excluding the PoE model.
- The **PCM** 系列模块需要支架(P/N:1960065854N021) 单独订购。

可选 Flex I/O* & Kits

料号	描述
Flex I/O	
AIIS-DIO32-00A1E**	AIIS GPIO module (32 bit)
PCA-TPMSPI-00A1	TPM 2.0 module (SPI)
98R17500001	MIC DVI FIO
98R17500101	MIC HDMI/Remote power on/off FIO
98R17500301	MIC HDMI kit FIO
98R17500401	MIC Remote power on/off FIO
98R17500601	MIC COMport kit FIO (4x COM RS-232 via 2x dual DB9 cable)
98R17500701	MIC Remote power on/off kit for SFIO
98R17500802	MIC Reset/Remote power on/off/5VDC kit FIO (SATA)
98R17500901	MIC GPIO kit FIO
98R17501001	MIC DP kit FIO
98R17501101	COM and HDMI kit
Advanced Flex I/O***	
98910770320	2 x 1GbE Ethernet Ports (Intel® i210-AT)
98910770330	4 x 1GbE Ethernet Ports (Intel® i210-AT), 1 x M.2 NVMe Slot
98910770340	2 x 2.5GbE Ethernet Ports (Intel® i226-V)
98910770350	4 x 2.5GbE Ethernet Ports (Intel® i226-V), 1 x M.2 NVMe Slot
98910770401	1 x M.2 NVMe Slot
98910770501****	4 x 1GbE Ethernet Ports with PoE (Intel® I350-AM4)
Storage Kit	
98R1752010E	2nd 2.5" HDD/SSD kit (used in 2-slot i-Module)
98R1752020E	2 x 2.5" SSD kit (Thickness: 7mm)
Mounting Kit	
98R17500210	MIC Din Rail Mounting kit
98R17500501	MIC Wall Mounting kit
Fan Kit	
98R17501303*****	MIC Fan Kit

* Please refer to Flex I/O datasheet for more detail.

** Can only be placed in the small FIO location and can't be installed with other flex IO.

*** R680E SKU only.

**** Can't be installed with other flex IO.

***** Only compatible with the MIC-770 series system without i-module.