

MVP-6000

Value Series 6th Generation Intel® Core™
i7/i5/i3 Processor-Based Fanless
Embedded Computer with two PCI/PCIe
Expansion Slots

New Product Introduction

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At ADLINK, We CARE



"Just Fit" Platform for Industrial Automation



Redefine IPC



MVP-6000 Series

- New Value Series for Industrial Automation.
- Best Price for Core i7 Fanless Box PC
- Reliable and Robust Design

3-min Value Props Overview



“Just Fit” Platform for Industrial Automation

- The right combination of features, performance and price offer the “just fit” platform
- 0°C~50°C fanless operation temperature
- Fully compatible with ADLINK’s full spectrum of motion and I/O cards



Robust and Maintain-less Design

- Fanless construction overcomes contaminant and noise challenges presented by harsh IA environments, the elimination of problematic structural elements that negatively affect MTBF greatly increases life cycle expectations for the platform
- Single side full-scale connectivity optimizes easy maintenance in industrial automation environment



Superior Computing Performance

- Support for high performance 6th Generation Intel® Core™ i7/i5/i3 Processor and H110 chipset
- Support Dual-channel DDR4 2133 MHz and up to 32 GB capacity for more powerful computing and the Intel® HD Graphic 530 speeds graphic performance

Application Ready Intelligent Platform

- The Best application-Ready platform with versatile ADLINK IO cards
- Fully compatibility DVT test with the report online

HDV62/62A
RTV24
FIW64
GIE64+/62+
CPL64

PCI-7250
PCI-7260
PCI-7432
PCI-7300A
PCI-9112
PCI-9221
PCI-9223



PCI-8144/8164
PCI-8154/8158
PCI-8136

PCI-9820
PCI-9846
PCI-9527
LPCI-3488

DAQ-2005
PCIe-7350
PCIe-7300A
PCIe-7296
LPCle-7230
DAQe-2005

Robust and Maintain-less Design Optimal Fin Design

Overcome the challenge and solve the problem of desktop
CPU heat sink capability.

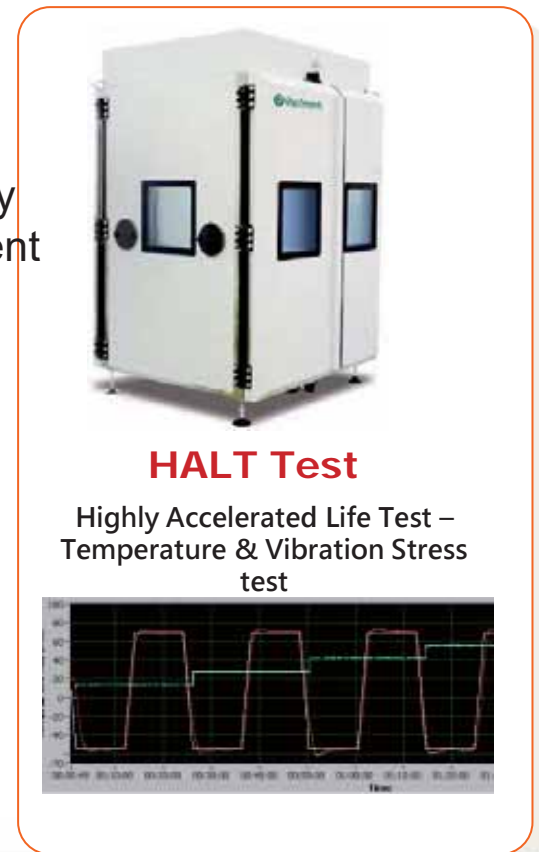
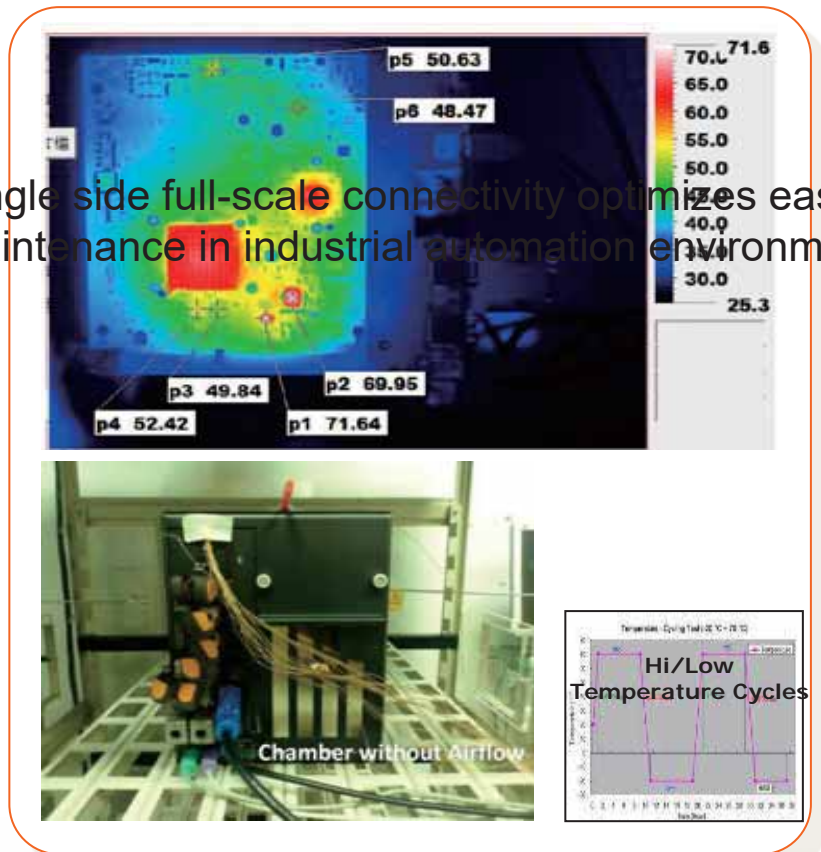
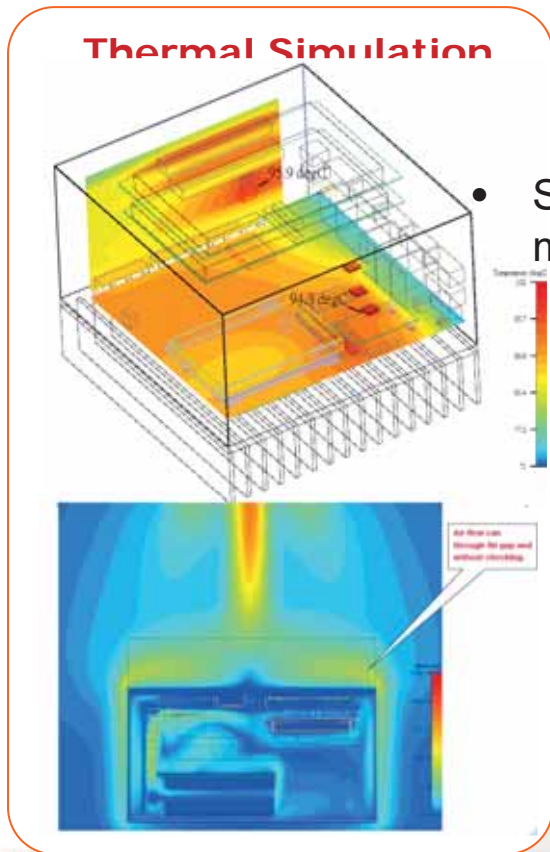


Robust and Maintain-less Design Reliable Fan-less Design

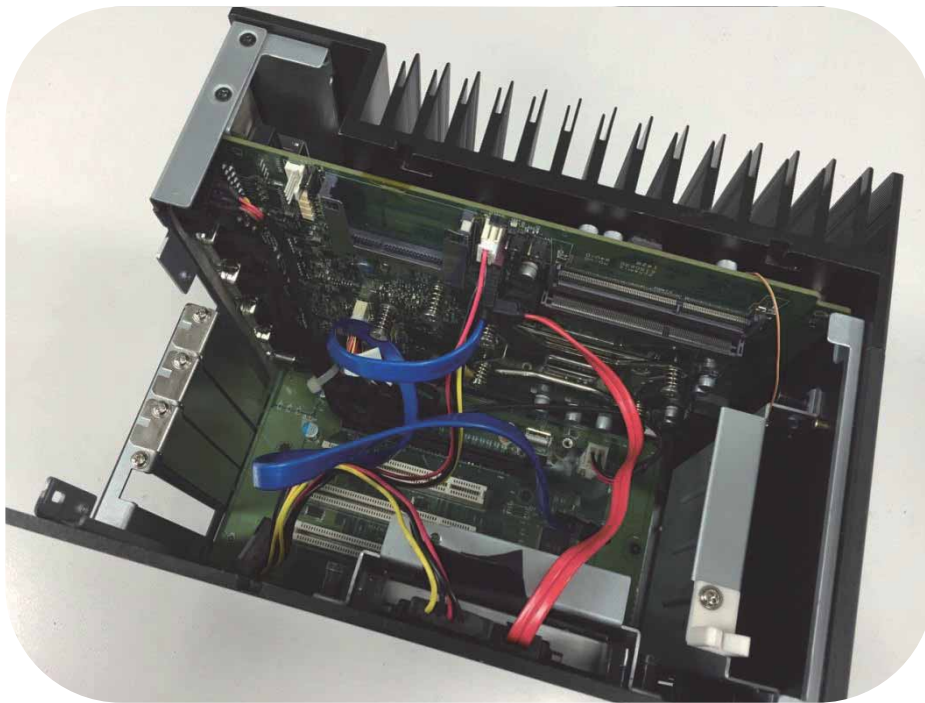


Design to Achieve Reliability

Test to Assure Reliability



Robust and Maintain-less Design Cable-Less-Like Design



General system design with Cable



Cable-Less-Like Design in MVP-6000

Robust and Maintain-less Design

Single Side Connectivity



Superior Computing Performance



PERFORMANCE

- EXCELLENT
- GOOD
- AVERAGE
- POOR

- **6th** Gen Intel Core I processor with **DDR4** support
- Increase **30 %+** CPU performance boost from Ivybridge to Skylake
- Increase **100%+** Graphics performance boost from Ivybridge to Skylake

MVP-6000 Application

Industrial Automation




Why MVP-6000?

- **Excellent Cost-Performance Ratio**
Same performance, lower price
- **Maintenance-Less**
Fan-Less
- **User-Friendly**
One side IO
- **Robust**
Anti-shock and vibration
- **On Board Rich IO**
Versatile IO to connect your field side devices
- **Operating temperature**
0°C~50°C



Competitive Advantage


MVP-6000 v.s Other Fan-Less Box PC

	MVP-6000 	Other Fanless Box PC
Price	Significantly Lower	Higher
Expansion Capacity	2	0~4
Fanless Design	Yes	Yes
Dimension (Capacity)	At the same capacity level	At the same capacity level
Original IO Diversity	Rich I/O	Rich I/O
Operating Temperature	0°C~50°C	-20°C~60°C

“Just fit” platform when expansion requirement ≤ 2 slots and operating temperature required from 0°C to 50°C, MVXC-6000 is the most cost-effective fanless box PC solution to fulfill your need.

Competitive Advantage


MVP-6000 v.s Mini-ITX Box

	MVP-6000 	Mini-ITX Box
Price	Slightly Higher	Slightly Lower
Expansion Capacity	2	0~1
Fanless Design	Yes	No
Dimension (Capacity)	Relatively large	Relatively Small
Original IO Diversity	Rich I/O	Simple I/O
Operating Temperature	0°C~50°C	0°C~40°C

Delivers more features at a value price, MVP-6000 is the most cost-effective platform for your choice.

Competitive Advantage

MVP-6000 v.s 4U Rack-Mount system

	MVP-6000 	4U Rack-Mount system
Price	At the same price level	At the same price level
Expansion Capacity	2	Up to 18
Fanless Design	Yes	No
Dimension (Capacity)	Relatively small	Relatively large
Original IO Diversity	Rich I/O	Simple I/O
Operating Temperature	0°C~50°C	0°C~40°C

Compact size and rich I/O saving the TCO.

Competitor Analysis



Brand/Model Name	ADLINK MVP-6000	Advantech ARK-3500	Nexcon NISE 4000P2E	IEI TANK-820-H61	DFI EC541-HD	MSI MS-9A66
Processor	Intel® Core™ 6 th Gen Skylake-S (Desktop)	Intel® Core™ I7-3610QE I5-3610ME I3-3120ME	Intel® Core™ I5-3610ME I3-3120ME	Intel® Core™ I5-2xxT I3-2xxT	Intel® Core™ I7-4770TE I5-4570TE	Intel® Core™ I5-4570TE
Chipset	H110	QM77	QM77	H61	H81	Q87
Display	1VGA+ 2DP+1DVID	1DVII+1HDMI+1 DP	2VGA+1DVID	1VGA+ 1 DVII	1VGA+ 1DP+ 1DVID	1DVII+ 2DP
Ethernet ports	3	2	4	2	2	2
USB ports	4(USB3.0)+2	4(USB3.0)+2	2(USB3.0)+2	2(USB3.0)+4	2(USB3.0)+4	4(USB3.0)+3
COM ports	4(2*RS232/422/485+ 2*RS232)	8(4*RS232/422/485+ 4*RS232)	2UART(2 isolated 232/422/485)	6(4*RS232+ 2*RS422/485)	6(RS232/422/485)	5(2*RS232/422/485+ 3*RS232)
Storage	1*2.5"HDD/SSD	2*2.5"HDD/SSD	2*2.5"HDD/SSD	1*2.5"HDD/SSD	2*2.5"HDD/SSD + 1*mSATA	2*2.5"HDD/SSD
Expansion	1 PCIe16+ 1 PCI+ 1Mini PCIe	1 PCIe4+ 1 PCIe1+ 2Mini PCIe	1 PCIe4+ 1 PCI+ 2Mini PCIe	1 PCIe16+ 1PCIe4+ 1PCI	1 PCIe16+ 3 PCI+ 1Mini PCIe	1 PCIe16+ 3 PCI
Digital I/O	8 DI+ 8 DO	16 DIO	16 isolated DI+16 isolated DO	4 DI+ 4 DO	8 DIO	8 DIO
Dimension	220*210*170	290*110*232	258*250*255	133x269x208	206.9x235.05x222.3	172x225x213
Operating Temperature	0~50	-10~60	0~55	-20 ~ 60	0~45	-10~50
Market Price	★ 1274(i7) 1090(i5) 972(i3)	1534(i7)	1450(i5)	1198(i5) 1078(i3)	TBD	1250(i5)

Ordering Information

Currency: USD\$

P/N	Model Name	Description	List Price	Product Grade
Coming Soon	MVP-6001(EA)	6th-Gen Intel Skylake-S Core i7 Processor, H110, 4GB DDR4 RAM,VGA+DVI-D, 2xDP, 3xGbe, 4xUSB3.0, 2xUSB2.0,1xSATA, 1xCFAST, 1xmPCIe, 1xUSIM, 4xCOM, 8DI+8DO, 1PClex16+1PCI slots, Line-out+Mic-IN, 12~24V DC-IN	\$1133	B
Coming Soon	MVP-6002(EA)	6th-Gen Intel Skylake-S Core i5 Processor, H110, 4GB DDR4 RAM,VGA+DVI-D, 2xDP, 3xGbe, 4xUSB3.0, 2xUSB2.0,1xSATA, 1xCFAST, 1xmPCIe, 1xUSIM, 4xCOM, 8DI+8DO, 1PClex16+1PCI slots, Line-out+Mic-IN, 12~24V DC-IN	\$969	B
Coming Soon	MVP-6003(EA)	6th-Gen Intel Skylake-S Core i3 Processor, H110, 4GB DDR4 RAM,VGA+DVI-D, 2xDP, 3xGbe, 4xUSB3.0, 2xUSB2.0,1xSATA, 1xCFAST, 1xmPCIe, 1xUSIM, 4xCOM, 8DI+8DO, 1PClex16+1PCI slots, Line-out+Mic-IN, 12~24V DC-IN	\$869	B

Optional Accessories

- **MVP-6000 Optional Fan Module**
Fan module for MVP-6000 series
- **8/16/32 GB DDR4 Option**
Upgrade to 8/16/32 GB DDR4 memory
- **500 GB HDD Option**
Factory-installed 500 GB SATA hard disk drive

- **1 TB HDD Option**
Factory-installed 1 TB SATA hard disk drive
- **64 GB SSD Option**
Factory-installed 64 GB MLC SATA solid-state drive
- **160W AC-DC Adapter**
160W Industrial grade AC-DC adapter

Sample Availability

	A2 Sample	Pilot Sample	MP schedule
MVP-6001	20 units 2016 Mar. 15 th	50 units 2016 May. 31 st	2016 Mar.
MVP-6002	Call for availability		2016 April
MVP-6003	Call for availability		2016 April

Contact Information

- For more information, please contact:

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Appendix

Appendix

Market Segmentation

Fan-less Embedded Computer

<i>Geography</i>	US	EU	China	AP
<i>Customer Type</i>	Automation	Surveillance	Marine	Digital Signage
<i>Form Factor</i>	COM Express	ETX	MINI ITX	proprietary
<i>Expansion Bus Type</i>	PCIE	PCI	Mini PCI-E	
<i>CPU+Chipset</i>	N2600/D2700 NM10	Ivy Bridge QM77	Haswell QM87	Skylake-S H110
<i>Price Level</i>	300 ~ 500	500 ~ 700	700 ~ 900	900 ~

MVP-6000 Specification (Cont')

Model Name	MVP-6001	MVP-6002	MVP-6003
System Core			
<i>Processor</i>	Intel® Core™ i7-6700TE	Intel® Core™ i5-6500TE	Intel® Core™ i3-6100TE
<i>Chipset</i>	H110		
<i>Video</i>	1 VGA + 2 DisplayPort + 1 DVI-D		
<i>Memory</i>	4 GB DDR4 2133 MHz (up to 32 GB)		
I/O Interface			
<i>Expansion slots</i>	1 PCIe x16 + 1 PCI		
<i>Ethernet</i>	3 Intel® GbE ports 3 Intel® I211AT WOL function on each port Teaming		
<i>Serial Ports</i>	4 COM by DB9 connector 2 software-programmable RS-232/422/485 (COM1 & 2) [BIOS select] 2x RS-232 (COM3 & 4) The RS-485 support auto-flow control 2 KV surge protection on RS-422/485		
<i>USB</i>	6 external USB ports (4 USB 3.0 +2 USB 2.0) Each of the 6 external USB ports supports 1.6A. To ensure 40 mil/A trace design and 5V ± 5% voltage stability 1 internal USB 2.0 port		
<i>DIO</i>	8-CH DI and 8-CH DO		
<i>Mini PCIe</i>	1 internal mini PCIe socket		
<i>USIM</i>	1 USIM socket		
<i>Audio</i>	1 Mic-in and 1 Line out		

MVP-6000 Specification

Manageability	
<i>WDT</i>	Watch Dog Timer supported
<i>SEMA</i>	SEMA 2.5 (option)
Power Supply	
<i>DC Input</i>	Built-in 12-24 Vdc wide-range DC input 3P pluggable connector with latch (GND, V-, V+)
<i>AC Input</i>	Optional 160 W external AC-DC adapter for AC input
Storage Device	
<i>SATA HDD</i>	1 SATA port for 2.5" HDD/SSD installation(up to 6 Gb/s)
<i>CompactFlash Socket</i>	1 Type II CFast
Mechanical	
<i>Dimensions</i>	220 (W) X 210(D) X 170(H) mm (8.67" x 8.27" x 6.69")
<i>Weight</i>	4.5 kg (9.92 lbs)
<i>Mounting</i>	Wall mount kit
Environmental	
<i>Operating Temperature</i>	0°C to 50°C
<i>Storage Temperature</i>	-40°C to 85°C (-40°F to 185°F) (excl. HDD/SDD/CF)
<i>Humidity</i>	~95% @ 40°C (non-condensing)
<i>Vibration</i>	Operating, 5 Grms, 5-500 Hz, 3 axes (w/ CF or SSD) Operating, 0.5 Grms, 5-500 Hz, 3 axes (w/ HDD)
<i>ESD</i>	Contact +/-4KV, Air +/-8KV
<i>Shock</i>	Operating, 100 Grms, half sine 11ms duration (w/ CF or SSD)
<i>EMC</i>	CE & FCC Class A
<i>Safety</i>	UL/cUL, CB, CCC