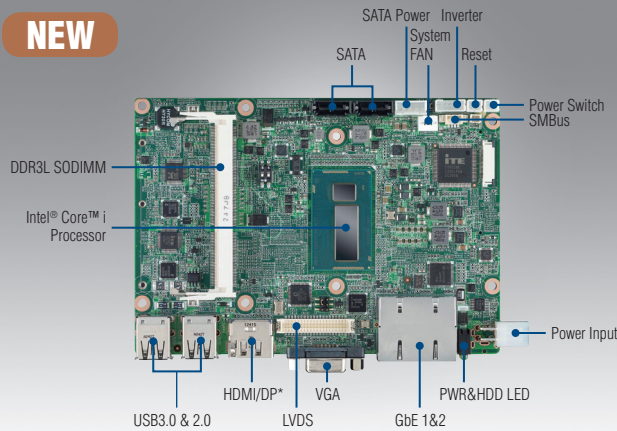


MIO-5271

4th Gen Intel® Core™ U-series (i5/Celeron®), 3.5" MI/O-Compact SBC, DDR3L, VGA, HDMI/DP*, 48-bit LVDS, 2GbE, 2 x Mini PCIe, mSATA, Fanless, MIOe

NEW



iManager susiAccess CE FCC

Features

- 4th Gen Intel® Core™ U-series (i5/Celeron®), 1 x DDR3L-1600/1333 SO-DIMM support up to 8 GB
- DirectX11.1, OpenGL4.0, OpenCL1.2, 3 independent display: VGA + LVDS + HDMI/Displayport*
- Optimized thermal design with fanless solution for wide temperature
- Flexible design using integrated multiple I/O: MIOe to approach vertical applications & keep domain knowhow.
- 2 GbE support, HD Audio, Rich I/O interface with 4 COM, 2 SATA, SMBus/iPC, GPIO, Half-size Mini PCIe, Full-size Mini PCIe w/ mSATA & 2 USB 3.0
- Supports Intel AMT9.0, iManager, SUSIAccess and Embedded Software APIs

Software APIs:



Utilities:



Specifications

Processor System	CPU	Intel Core i5-4300U	Intel Celeron 2980U
	Base Frequency	1.9 GHz (Dual-Core)	1.6GHz (Dual-Core)
	Max Turbo Frequency	2.9 GHz	N/A
	L3 Cache	3MB	2MB
	System Chipset	Integrated Intel 8 Series Chipset	
Memory	BIOS	AMI UEFI 128 Mbit	
	Technology	DDR3L 1333/1600 MHz	
Display	Max. Capacity	8 GB	
	Socket	1 x 204-pin SODIMM	
	Controller	Intel HD Graphics 4400 / Intel HD Graphics (Celeron)	
	Processor Graphics	DirectX11.1, OpenGL 4.0, and OpenCL 1.2 Full AVC/VC1/MPEG2 HW Decode	
	VGA	Up to 1920 x 1200 with 60 Hz, 154 MHz pixel clock rate	
	LVDS	LVDS with 3.3V, 5V and 12V on LCD VDD power. 5V and 12V support on LVDS inverter Dual channel 24-bit LVDS, max resolution up to 1920 x 1200 with 60Hz	
Ethernet	HDMI / DisplayPort*	Supports HDMI 1.4 for HD Video playback Max resolution up to 3200 x 2000 at 60 Hz on DisplayPort, 4096 x 2304 at 24 Hz on HDMI	
	Multi-Display	VGA+HDMI/DP*, VGA+LVDS, HDMI/DP*+LVDS, VGA + HDMI/DP* + LVDS	
	Speed	10/100/1000Mbps	
Audio	Controller	GbE1: Intel i218, GbE2: Intel i210	
	Connector	2 RJ45 on Rear I/O	
WatchDog Timer	Codec	High Definition Audio (HD), Line-in, Line out, Mic-in	
Storage	Amplifier	Optional via MIOe	
	SATA	Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds	
Rear I/O	mSATA	2, up to 6.0 Gb/s (600 MB/s)	
	Ethernet	1 x Full-size (support either mSATA or miniPCIe, select by switch)	
	VGA	2	
	HDMI / DisplayPort*	1	
	USB 2.0	1	
	USB 3.0	2	
	LED	Power, HDD	
Internal I/O	DC Jack*	1	
	Serial	2 x RS-232 from COM1/2, 2 x RS-232/422/485 from COM3/4 with auto flow control (ESD protection: Air gap ±15kV, Contact ±8kV)	
	USB*	1 (Shares with the USB port for Mini PCIe)	
	iPC	1 (Shares with SMBus pin)	
	SMBus	1	
Expansion	GPIO	8-bit general purpose input/output	
	Mini PCIe	1 x Full-size with SIM card holder (default support mSATA) 1 x Half-size	
Power	MIOe	Displayport*, SMBus, 3 x USB2.0, LPC, 1 x PCIe x1, line out, +5 Vsb/+12 Vsb power, Power On, Reset	
	Power Type	Single 12V DC power input	
	Power Supply Voltage	Supports single 12V input, ± 10%	
	Power Consumption (Typical)	MIO-5271U-S6A1E: 0.38 A @ 12 V (4.56 W) MIO-5271U-S9A1E: 0.39 A @ 12 V (4.68 W)	
	Power Consumption (Max)	MIO-5271U-S6A1E: 1.71 A @ 12 V (20.52 W) MIO-5271U-S9A1E: 2.46 A @ 12 V (29.52 W)	
	Power Management	ACPI	
Environment	Battery	Lithium 3 V / 210 mAh	
	Operational	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)	
Physical Characteristics	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing	
	Dimensions (L x W)	146 x 102 mm (5.7" x 4"), same as 3.5"	
	Weight	0.84 kg (1.72lb), weight of total package	
	Height	Top Side: 24 mm (MIO-5271U), 34 mm (MIO-5271Z&Z2); Bottom Side: 6.8 mm; PCB: 1.6mm	

*It will not be supported in default, please contact to Advantech if this function is needed.

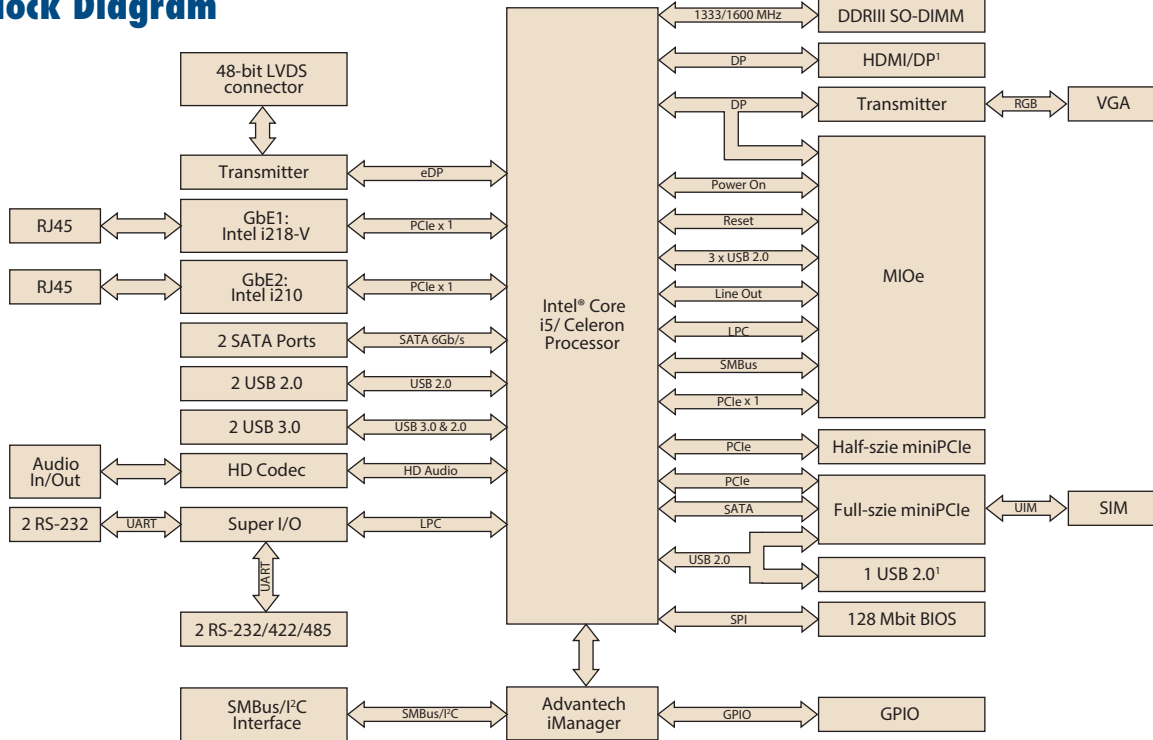
ADVANTECH

MIO Extension SBCs, Modules and Chassis

All product specifications are subject to change without notice

Last updated : 17-Feb-2015

Block Diagram



¹ Support by request

Ordering Information

Part No.	CPU	L3 Cache	Memory	LVDS	VGA	HDMI/DP¹	GbE	HD Audio	RS-232/422/485	RS-232	USB 3.0	USB 2.0	SATAIII	Half-size Mini PCIe	Full-size Mini PCIe²	MIOe	Power connector	Thermal Solution²	Operation Temp.
MIO-5271U-S9A1E	Intel i5-4300U 1.9GHz 15W	3MB	SO-DIMM	48-bit	Yes	HDMI	2	1	2	2	2	2	2	1	1	1	2x2 pin	Passive	0 – 60° C
MIO-5271U-S6A1E	Intel Celeron 2980U 1.6GHz 15W	2MB	SO-DIMM	48-bit	Yes	HDMI	2	1	2	2	2	2	2	1	1	1	2x2 pin	Passive	0 – 60° C
MIO-5271Z-4GS9A1E	Intel i5-4300U 1.9GHz 15W	3MB	4GB bundle	48-bit	Yes	HDMI	2	1	2	2	2	2	2	1	1	1	2x2 pin	Passive	-20 – 80° C
MIO-5271Z-4GS9A1E	Intel i5-4300U 1.9GHz 15W	3MB	4GB bundle	48-bit	Yes	HDMI	2	1	2	2	2	2	2	1	1	1	2x2 pin	Passive	-40 – 85° C

¹ Support by request

² Default support mSATA

Packing List

Part No.	Description	Quantity
	MIO-5271 SBC	1
2006527100	Startup Manual	1
1700006291	M Cable SATA 7P/SATA 7P 30cm C-R 180/90	1
1700018785	SATA 35cm power cable	1
1701200220	COM RS-232 Cable 2*10P-2.0/D-SUB 9P (M)*2 22CM	2
1700019584	Audio Cable 2*5P-2.0/JACK*3 20cm	1
9689000002	mini Jumper pack	1
1960062041T001	Heatsink (104 x 83 x 24 mm) for MIO-5271U only	1
1960066765T001	Heatsink (145 x 84 x 34 mm) for MIO-5271Z&Z2 only	1

Optional Accessories

Part No.	Description
1960063980N001	Heat spreader for MIO-5271
1700023098-01	Internal 1 x USB-A cable 15CM

Embedded OS/API

Embedded OS/API	Part No.	Description
Windows Embedded Standard 7	2070012422	WES7E MIO-5271 x86 V5.1.6 EN/TC/SC/JP
VxWorks		6.9.2
Linux		Ubuntu 13.04
Software API		iManager 2.0

Rear I/O View



MIO-5271U-S9A1E
MIO-5271U-S6A1E
MIO-5271Z-4GS9A1E
MIO-5271Z2-4GS9A1E