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# Datasheet

## Advantech

**MIO-3260**

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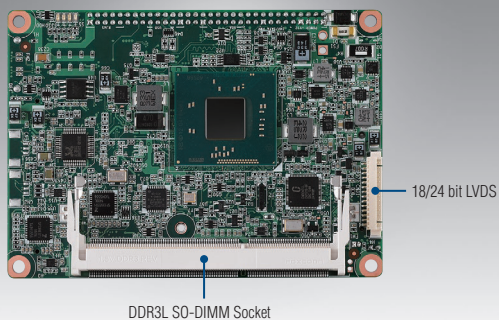
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# MIO-3260

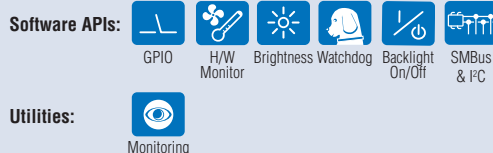
**Intel® Atom™ E3825 & Celeron® N2930  
Pico-ITX SBC, DDR3L, 18/24-bit LVDS, VGA,  
DP/HDMI, 1 GbE, Full-size Mini PCIe,  
4 USB, 2 COM, SMBus, I<sup>2</sup>C, mSATA & MIOe**

**NEW**



## Features

- Embedded Intel® Atom™ E3825 & Celeron® N2930 up to Quad-Core processor design, DDR3L 1333MHz support up to 8GB
- Intel Gen 7 DirectX®11.1 support, Dual Independent display: 18/24bit LVDS, VGA, DP/HDMI
- Flexible design using integrated multiple I/O: MIOe to approach vertical applications & keep domain knowhow
- Intel GbE support, Rich I/O interface with 2 COM, 1 SATA, 4 USB 2.0, GPIO, SMBus, I<sup>2</sup>C, and MIOe expansion interface
- Supports SUSIAccess and Embedded Software APIs



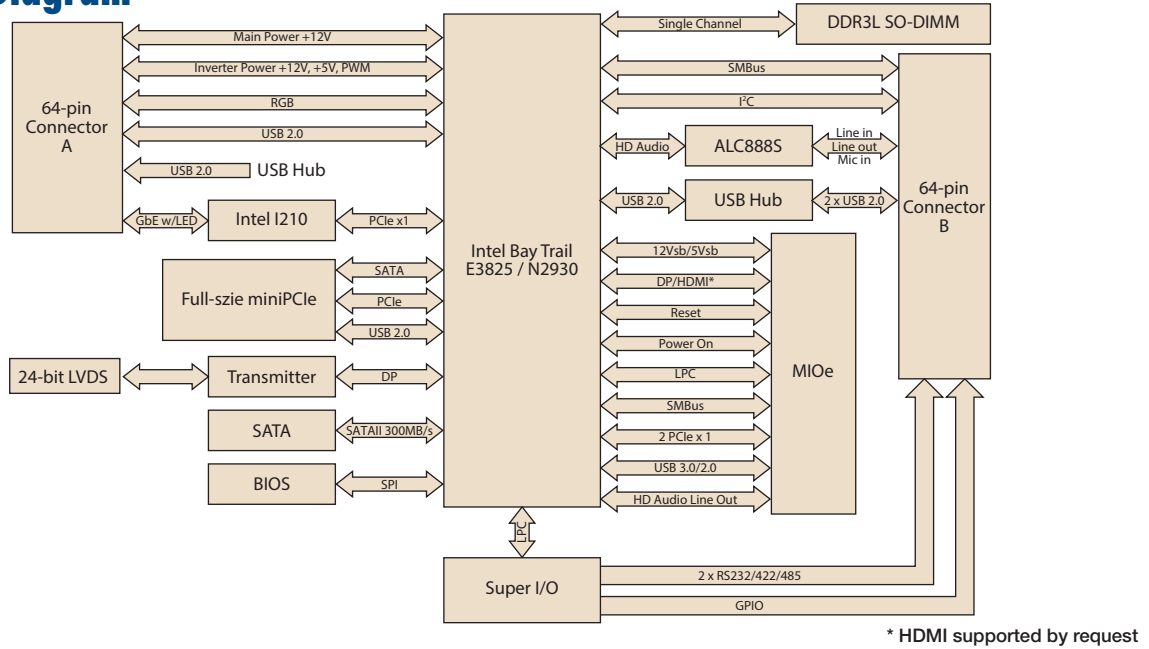
## Specifications

Processor System	CPU	Intel Atom E3825	Intel Celeron N2930
	Frequency	1.33 GHz (Dual-Core)	1.83 GHz (Quad-Core)
	L2 Cache	1 MB	2 MB
	Max Turbo Frequency	-	2.16GHz
	System Chipset	Intel Atom SoC processor integrated	
Memory	BIOS	AMI EFI 64 Mbit	
	Technology	DDR3L 1333 MHz for N2930, DDR3L 1066 MHz for E3825	
	Max. Capacity	8 GB	
Display	Socket	1 x 204-pin SODIMM (Support 1.35V DDR3L)	
	Chipset	Intel Gen7 graphic engine	
	Graphic Engine	DirectX®11, Open GL3.0, Open CL 1.1, OGL ES 2.0 Encode: H.264, MPEG2 Decode: H.264, MPEG2, VC-1, WMV9	
	LVDS	Supports single channel 24-bit LVDS up to 1440 x 900 at 60Hz	
	VGA	Supports 2560 x 1600 at 60Hz	
Ethernet	Dual Display	Yes (LVDS+VGA or LVDS+DP/HDMI or VGA+DP/HDMI)	
	Speed	10/100/1000Mbps	
Audio	Controller	Intel I210	
	Chipset	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in	
WatchDog Timer		Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds	
Storage	mSATA*	1 (Supports mSATA or USB interface module or full size miniPCIe, selected by BIOS, default is mSATA)	
	SATA	1, up to 3Gb/s (300MB/s)	
Expansion	Mini PCI Express	1 x Full-size	
	MIOe	SMBus, USB3.0, LPC, 2 x PCIe x1, Line out, DisplayPort/HDMI*, +5 Vsb/+12 Vsb power, Power On, Reset	
	64-pin connector A	12V DC input, Inverter, VGA, 2 x USB2.0, 1GbE w/ LED**	
	64-pin connector B	SMBus, I <sup>2</sup> C, Power/Reset button, HDD/Power LED, 2 x USB2.0, 8-bit GPIO, HD Audio Line-in, Line out, Mic-in, 2 x RS-232/422/485	
Power	Power Type	Single 12V DC power input	
	Power Supply Voltage	Supports single 12V input, ± 10%	
	Total peripheral power supply output	5V @ 3A for CPU board and MIOe module totally, 12V @ 2A for MIOe module	
	Power Consumption (Typical)	MIO-3260L-S3A1E(E3825): 4.47W MIO-3260L-S8A1E(N2930): 5.08W MIO-3260C-S8A1E(N2930): 4.22W	
	Power Consumption (Max)	MIO-3260L-S3A1E(E3825): 7.13W MIO-3260L-S8A1E(N2930): 9.73W MIO-3260C-S8A1E(N2930): 8.71W	
	Power Management	ACPI	
Environment	Battery	3 V / 210 mAH	
	Operation	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)	
Physical Characteristics	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	
	Dimensions (L x W)	100 x 72 mm (3.9" x 2.8")	
	Weight	MIO-3260L: 0.35 kg (0.77 lb), MIO-3260C: 0.55 kg (1.21 lb), weight of total package	
	Total Height	Top Side: 15.7 mm (including heatsink); Bottom Side: 8.5 mm; PCB: 1.6 mm	

\* The specification is supported by request

\*\* MIO-3260C default support GbE only. GbE w/LED is supported by request.

## Block Diagram



## Ordering Information

Part No.	CPU	L2 Cache	Memory	LVDS	VGA	GbE	HD Audio	USB 2.0	RS-232/422/485	SATAII	Mini PCIe*	MIOe	Connector Type	Thermal Solution	Operational Temp.
MIO-3260L-S3A1E	Intel Atom E3825 1.33G	1MB	SO-DIMM	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	64-pin	Passive	0 - 60° C
MIO-3260L-S8A1E	Intel Celeron N2930 1.83G	2MB	SO-DIMM	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	64-pin	Passive	0 - 60° C
MIO-3260C-S8A1E	Intel Celeron N2930 1.83G	2MB	SO-DIMM	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	Box Wafer	Passive	0 - 60° C
MIO-3260L222GS3A1E	Intel Atom E3825 1.33G	1MB	2GB bundle	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	64-pin	Passive	-40 - 85° C
MIO-3260L222GS8A1E	Intel Celeron N2930 1.83G	2MB	2GB bundle	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	64-pin	Passive	-40 - 85° C
MIO-3260C222GS8A1E	Intel Celeron N2930 1.83G	2MB	2GB bundle	18/24-bit	Yes	1	Yes	4	2	1	Full-size	Yes	Box Wafer	Passive	-40 - 85° C

\* Full-size Mini PCIe supports mSATA  
 Note1: Default BIOS supports 64 bits OS installation, BIOS for 32 bits OS installation is supported by project.  
 Note2: Passive - fanless; Active - with fan  
 Note3: MIO-3260C with E3825 CPU is supported by request.

## Packing List

Part No.	Description	Quantity
	MIO-3260 SBC	1
	Startup Manual	1
1700006291	SATA cable 30cm	1
9666226200E	Screw and stud pack (2 screw for Mini PCIe, 4 x M3 studs and screws for heatsink)	1
9666226300E	Screw and stud pack (2 screw for Mini PCIe, 4 x M3 studs and screws for heatsink)	1*
1960063455T001	Heatsink (99.5 x 70.5 x 15.7mm)	1
1700023340-01	Power Cable 2*2P-4.2/2*4P-2.0 10cm	1*
1700023339-01	Inverter and SATA power Cable 2*3P-2.0/1*5P-1.25 15cm	1*
1700023341-01	VGA Cable 15P(F)/2*6P-2.0 15CM	1*
1700019000	USB Cable 2*5P-2.0/USB-A(F)*2 w/Bracket 26CM w/Locked	1*
1700002172	USB Cable 2*5P-2.0/USB-A(F) 17CM	1*
1700019001	LAN Cable RJ-45/2*5P-2.0 15cm w/locked	1*
1700019584	Audio Cable 2*5P-2.0/Audio JACK*3 20cm	1*
1701200220	COM. Cable 2*10P-2.0/D-SUB 9P(M)*2 22CM	1*

\* Only for MIO-3260C-S8A1E

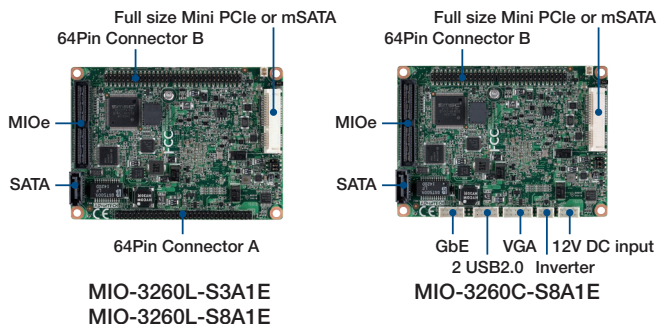
## Optional Accessories

Part No.	Description
1960065074N001	Heat spreader (99.5 x 70.5 x 11.2mm)
MIOE-DB2100-00A1E	MIO-3260 Evaluation Board
1700024079-01	LAN w/LED cable RJ45-8P8C/2*7P-2.0 15cm

## Embedded OS/API

Embedded OS/API	Part Number	Description
WES8	2070013532	WE8 MIO-3260 X64 V6.5.2 Eng/Cht/Chs/Jpn
WES7	2070013483	WES7E MIO-3260 X64 V5.6.8 Eng/Cht/Chs/Jpn
WEC7	2070013570	WEC7 Pro MIO-3260 V1.0 Eng
VxWorks		6.9
Linux		Ubuntu V13.10
Software API		SUSI V4.0

## Bottom Side View



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