



 APOLLO DISPLAY
TECHNOLOGIES



 DISTEC



 DISPLAY
TECHNOLOGY



Datasheet

Advantech

MIO-2263

2.5" SBC with Intel® Atom™ E38258, Celeron® J1900

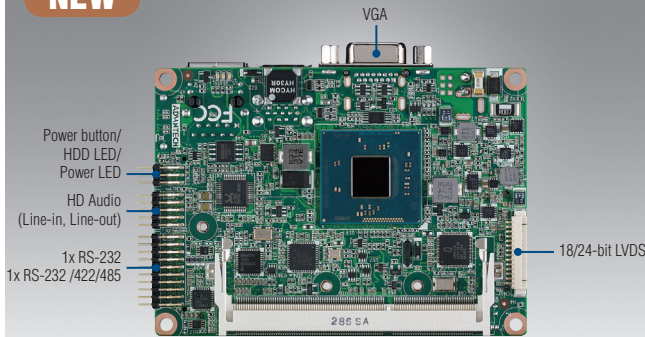


The information contained in this document has been carefully researched and is, to the best of our knowledge, accurate. However, we assume no liability for any product failures or damages, immediate or consequential, resulting from the use of the information provided herein. Our products are not intended for use in systems in which failures of product could result in personal injury. All trademarks mentioned herein are property of their respective owners. All specifications are subject to change without notice.

MIO-2263

Intel® Atom™ SoC E3825/ J1900 Pico-ITX SBC,
DDR3L, 24-bit LVDS, VGA or HDMI, 1 GbE,
Half-size Mini PCIe, 4 USB, 2 COM, SMBus,
mSATA & MIOe

NEW



WISE-PaaS/RMM CE FCC

Features

- Embedded Intel® Atom™ SoC E3825 & Celeron J1900 up to Quad-Core processor design, DDR3L 1333MHz support up to 8GB
- Intel Gen 7 DirectX®11.1 support, dual independent display by 24-bit LVDS + VGA or 24-bit LVDS + HDMI
- Flexible design using integrated multiple I/O: MIOe to approach vertical applications & keep domain knowhow
- Rich I/O interface with 2 COM, 1 SATA, USB3.0, PCIe Mini Card and mSATA
- Supports WISE-PaaS/RMM and Embedded Software APIs

Software APIs:



Utilities:



Specifications

Processor System	CPU	Intel Celeron J1900	Intel Atom E3825
	Frequency	2.0 GHz (Quad-Core)	1.33 GHz (Dual-Core)
	L2 Cache	2 MB	1 MB
	Max Turbo Frequency	2.42 GHz	-
	System Chipset	Intel Atom SoC processor integrated	
	BIOS	AMI EFI 64 Mbit	
Memory	Technology	DDR3L 1333 MHz for J1900 DDR3L 1066 MHz for E3825	
	Max. Capacity	8 GB	
	Socket	1 x 204-pin SODIMM (Support 1.35V DDR3L)	
Display	Chipset	Intel® Atom SoC integrated	
	Graphic Engine	DirectX®11, Open GL3.0/ Open CL 1.1, OGL ES 2.0 Encode: H264, MPEG2/4, VC1, WMV9 Decode: H264, MPEG2	
	LVDS	Supports single channel 24-bit LVDS Resolution: 1440 x 900 at 60Hz	
	VGA	Up to 2560 x 1600 at 60Hz	
	HDMI	Up to 1920 x 1080 at 60 Hz	
Dual Display	Yes (VGA+LVDS or HDMI+LVDS)		
Ethernet	Speed	10/100/1000 Mbps	
	Controller	Intel i210	
	Connector	RJ45 on rear I/O	
Audio	Chipset	Realtek ALC888S, High Definition Audio (HD), Line-in, Line-out	
Watchdog Timer		Output system reset, programmable counter from 1-255 minutes/ seconds	
Storage	mSATA	1 x half size mini PCIe slot	
	SATA	1, up to 3Gb/s (300MB/s)	
Rear I/O	Ethernet	1	
	VGA	1	
	USB	1 x USB 3.0 compatible with USB 2.0 1 x USB 2.0	
	DC Power Jack*	1	
	USB	2 x USB 2.0	
Internal I/O	Serial	1 x RS-232 from COM2 (ESD protection for RS-232: Air gap ±15kV, Contact ±8kV) 1 x RS-232/422/485 from COM1 with auto-flow control	
	SMBus	1	
	GPIO	8-bit general purpose input/ output	
	Mini PCI Express	1 x Half-size	
Expansion	MIOe	SMBus, 2 x USB2.0, LPC, 2 x PCIe x1, line out, DisplayPort/HDMI*, +5 Vsb/+12 Vsb power, Power On, Reset	
Power	Power Type	Single 12V DC power input (Supports DC power hot plug)	
	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)	J1900: 0.86A @12V (10.59W) E3825: 0.59A @ 12V (7.08W)	
	Power Consumption (Max, test in HCT)	J1900: 1.04A @12V (12.48W) E3825: 0.76A @ 12V (9.12W)	
	Power Management	ACPI	
Environment	Battery	Lithium 3V/ 210mAH	
	Operation	0 ~ 60° C with air flow 0.7m/s (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	0.46 kg (1.01 lb), weight of total package	
Total Height	33.63 mm		

* Support by request

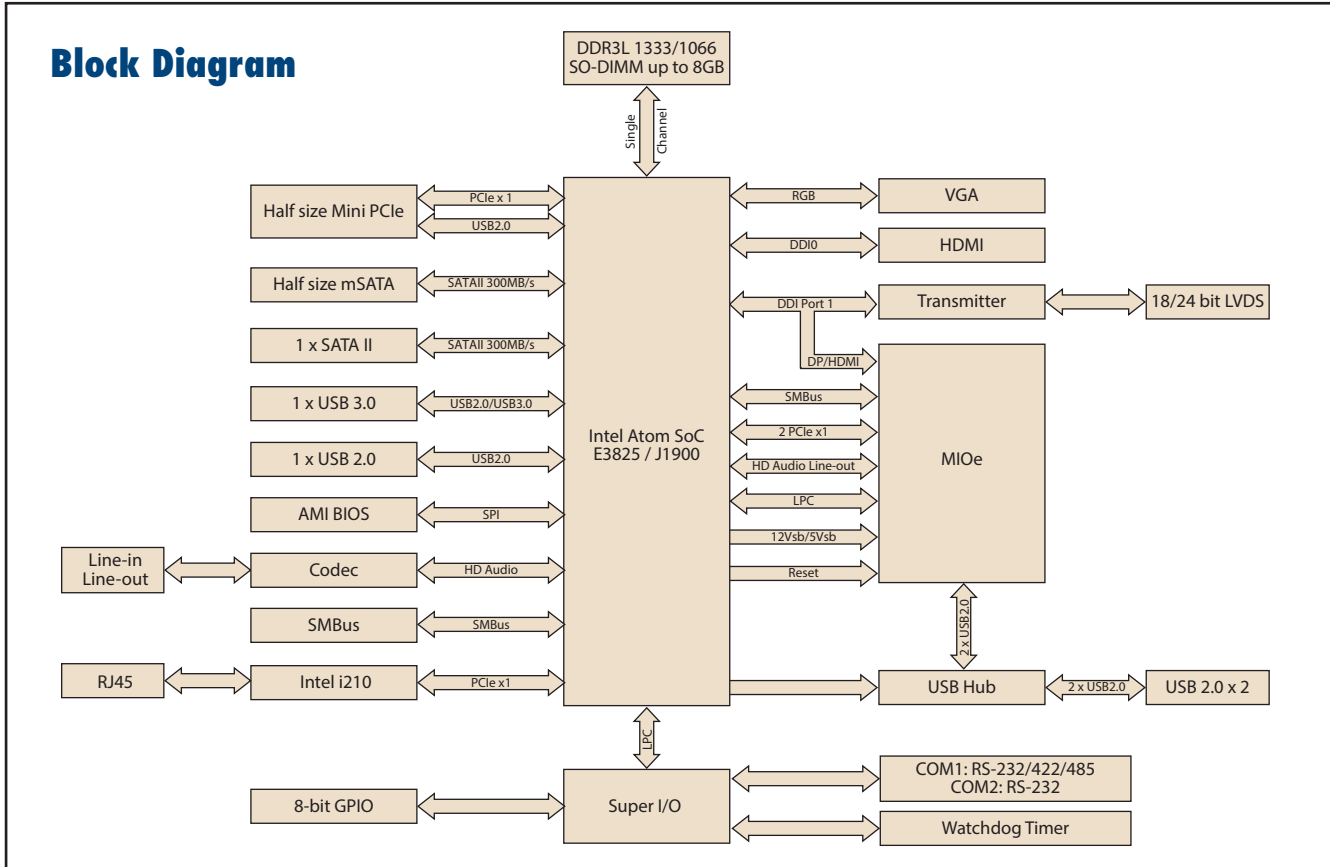
ADVANTECH

MIO Extension SBCs, Modules and Chassis

All product specifications are subject to change without notice

Last updated: 24-May-2017

Block Diagram



Ordering Information

Part Number	CPU	L2 Cache	Memory	LVDS	VGA	HDMI	Audio	RS-232	RS-232/422/485	USB 3.0	USB 2.0	mSATA	SATA II	MIOe	Mini PCIe	Thermal solution	Operating Temp
MIO-2263E-S3A1E	E3825, 1.33 GHz	1MB	SO-DIMM	24-bit	Yes	-	Yes	1	1	1	3	Yes	1	Yes	Half-size	Passive	0 - 60° C
MIO-2263J-U0A1E	J1900 2.0 GHz	2MB	SO-DIMM	24-bit	Yes	-	Yes	1	1	1	3	Yes	1	Yes	Half-size	Passive	0 - 60° C
MIO-2263JH-U0A1E	J1900 2.0 GHz	2MB	SO-DIMM	24-bit	-	Yes	Yes	1	1	1	3	Yes	1	Yes	Half-size	Passive	0 - 60° C
MIO-2263EZ-2GS3A1E	E3825, 1.33 GHz	1MB	2GB bundle	24-bit	Yes	-	Yes	1	1	1	3	Yes	1	Yes	Half-size	Passive	-20 - 80° C
MIO-2263EZ22GS3A1E	E3825, 1.33 GHz	1MB	2GB bundle	24-bit	Yes	-	Yes	1	1	1	3	Yes	1	Yes	Half-size	Passive	-40 - 85° C

* Default BIOS supports 64 bits OS installation, BIOS for 32 bits OS installation is supported by project.

Packing List

Part No.	Description	Quantity
	MIO-2263 SBC	1
	Startup Manual	1
1700006291	SATA cable 30cm	1
1700019656	SATA power cable 5P-1.25/5P-2.0+SATA 5P 15 cm	1
1701200220	RS-232 x 2 ports 2.0mm pitch 22cm	1
1700022444-01	Audio cable 2.0 mm pitch 20 cm (line-in & line-out)	1
1700002172	USB cable 2.0 mm pitch USB-A(F) 17 cm	1
1700019705	AT power cable 12 cm	1
9666226300E	Screw and stud pack (2 screw for Mini PCIe, 4 x M3 studs and screws for heatsink)	1
1960063455T001	CPU heatsink for MIO-2263	1

Optional Accessories

Part No.	Description
1960065074N001	MIO-2263 Heat spreader (99.5 x 70.5 x 11.2 mm)

Embedded OS/API

Embedded OS/API	Part No.	Description
WES8	TBD	WES8E ENG
WES7	2070012999	WES7E MIO-2263 x64 V5.6.8 US/ CN/TW/JP
WEC7	TBD	CE7.0 ENG
VxWorks		6.9
Linux		Ubuntu V13.10
Software		SUSI V4.0

Rear I/O View



MIO-2263E-S3A1E
MIO-2263J-U0A1E



MIO-2263JH-U0A1E



MIO-2263 w/DC Jack (by request)

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, the UK and the USA. For more information please contact:

Headquarters

Germany



FORTEC Elektronik AG

Augsburger Str. 2b
82110 Germering

Phone: +49 89 894450-0
E-Mail: info@fortecaq.de
Internet: www.fortecaq.de

Fortec Group Members

Austria



Distec GmbH Office Vienna

Nuschinggasse 12
1230 Wien

Phone: +43 1 8673492-0
E-Mail: info@distec.de
Internet: www.distec.de

Germany



Distec GmbH

Augsburger Str. 2b
82110 Germering

Phone: +49 89 894363-0
E-Mail: info@distec.de
Internet: www.distec.de

Switzerland



ALTRAC AG

Bahnhofstraße 3
5436 Würenlos

Phone: +41 44 7446111
E-Mail: info@altrac.ch
Internet: www.altrac.ch

United Kingdom



Display Technology Ltd.

Osprey House, 1 Osprey Court
Hichingbrooke Business Park
Huntingdon, Cambridgeshire, PE29 6FN

Phone: +44 1480 411600
E-Mail: info@displaytechnology.co.uk
Internet: www.displaytechnology.co.uk

USA



Apollo Display Technologies, Corp.

87 Raynor Avenue,
Unit 1 Ronkonkoma,
NY 11779

Phone: +1 631 5804360
E-Mail: info@apolloDisplays.com
Internet: www.apolloDisplays.com