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# Datasheet

## **ADVANTECH**

**PCM-9365**

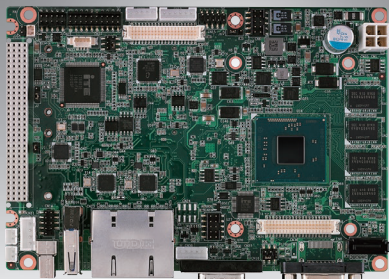
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# PCM-9365

**Intel® Atom™ E3825 & Celeron® N2930, 3.5" SBC, 2GB/4GB On-board Memory, VGA, 48-bit LVDS, 2GbE, Mini PCIe, PCI-104, iManager**

**NEW**



**iManager susiAccess** **CE FCC**

## Features

- Intel® Atom™ E3825 & Celeron® N2930, DDR3L-1066/1333MHz 2GB/4GB on-board memory
- DirectX11, OpenGL3.2, OpenCL1.1, 3 independent display: VGA+LVDS/HDMI+LVDS\*/Dual LVDS
- Support PCI-104 expansion
- 2 GbE, rich I/O: 4COM, SATA, USB3.0, SMBus/I<sup>2</sup>C, GPIO, full-size Mini PCIe, full-size mSATA
- Supports iManager (SUSI 4.0), SUSIAccess and Embedded Software APIs

### Software APIs:



### Utilities:

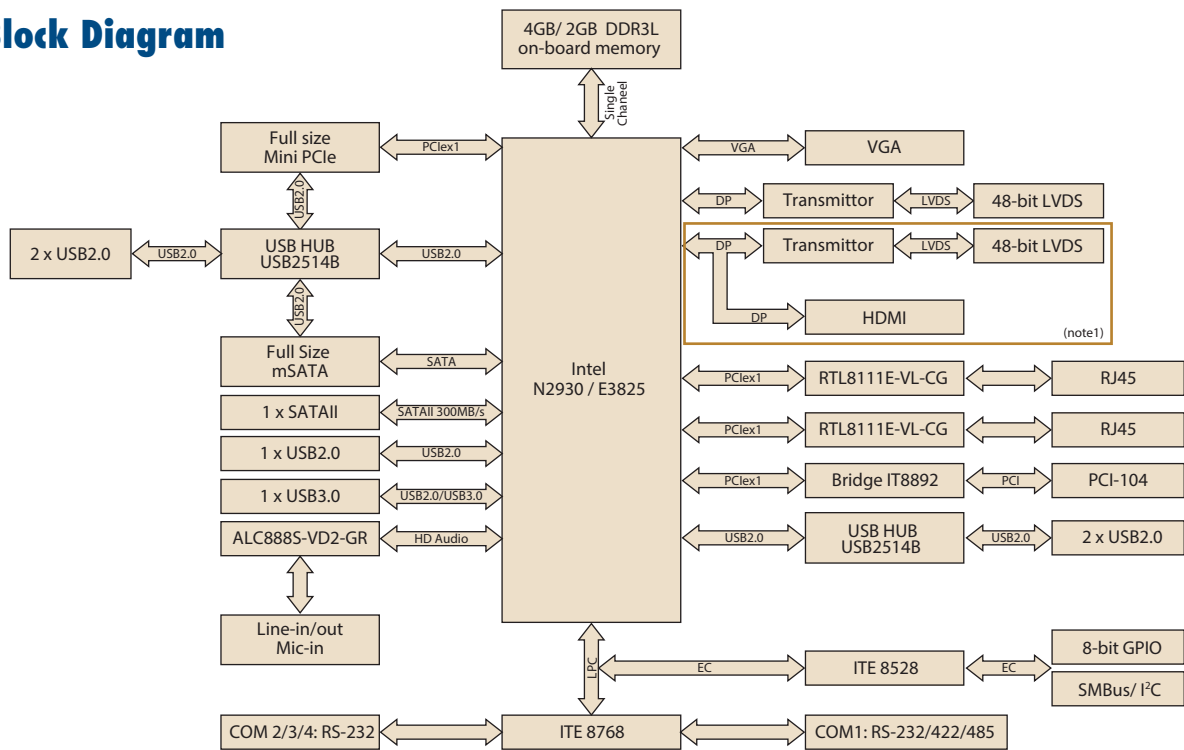


## Specifications

Processor System	CPU	Intel Celeron N2930	Intel Atom E3825
	Base Frequency	1.83 GHz (Quad-Core)	1.33 GHz (Dual-Core)
	Max Turbo Frequency	2.16 GHz	-
	L2 Cache	2MB	1MB
Memory	BIOS	AMI UEFI BIOS at 64 Mb	
	Technology	DDR3L 1333 MHz	DDR3L 1066 MHz
	Max. Capacity	4 GB	
Display	On-board memory	Yes	
	Controller	Intel Gen7 graphic engine	
	Processor Graphics	DirectX11, OpenGL3.2, OpenCL1.1	
	VGA	Full HW acceleration, decode: H.264, MPEG2/4, VC-1, WMV9. Encode: H.264, MPEG2	
	LVDS	2560 x 1600 at 60Hz	
	HDMI	48-bit dual LVDS up to WUXGA 1920 x 1200 at 60Hz, the 2nd LVDS is supported by request	
Ethernet	Speed	Supports 3.3/5/12V for VDD power, 1A@5V/12V for inverter	
	Controller	HDMI 1.4a for HD video playback, 1080P at 60Hz	
	Connector	VGA + LVDS, HDMI*+ LVDS, LVDS + LVDS*	
Audio	Speed	10/100/1000Mbps	
	Controller	Realtek RTL8111E-VL-CG	
WatchDog Timer	Connector	2 RJ45	
	Codec	Realtek ALC888S, High Definition Audio (HD), Line-in, Line out, Mic-in	
Storage	SATA	Output System reset, Programmable counter from 1 - 255 minutes/ seconds	
	mSATA	1, up to 3Gb/s (300 MB/s)	
Rear I/O	mSATA	1 x Full-size	
	Ethernet	2 (10/100/1000Mbps)	
	VGA	1	
	HDMI	1 (support by request)	
	USB 2.0	1	
	USB 3.0	1	
Internal I/O	Serial	1 RS232/422/485 support auto flow control	
	Serial	3 RS-232 (ESD protection: Air gap ±15kV, Contact ±8kV)	
	I <sup>2</sup> C	4	
	I <sup>2</sup> C	1 (Shared with SMBus pin)	
Expansion	SMBus	1	
	GPIO	8-bit	
Power	Mini PCIe	1 x Full-size	
	Power Type	PCI-104 Expansion	
	Power Supply Voltage	Single 12V DC power input	
	Power Consumption (Typical)	12V ± 10%	
	Power Consumption (Max, test in HCT)	PCM-9365E-2GS3A1E : 0.39A @ 12V (4.68W) PCM-9365EV-4GS3A1E : 0.44A @ 12V (5.28W) PCM-9365N-4GS8A1E : 0.509A @ 12V (6.108W) PCM-9365E-2GS3A1E : 0.49A @ 12V (5.88W) PCM-9365EV-4GS3A1E : 0.554A @ 12V (6.648W) PCM-9365N-4GS8A1E : 0.745A @ 12V (8.94W)	
	Battery	ACPI	
Environment	Operational	Lithium 3 V / 210 mA	
	Non-Operational	0 - 60° C with 0.7m/s air flow (32 - 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)	
Physical Characteristics	Dimensions (L x W)	-40° C - 85° C and 60° C @ 95% RH Non-Condensing	
	Weight	146 x 102 mm (5.7" x 4"), same as 3.5"	
	Height	0.54kg (1.19lb), weight of total package Top Side: 19.5 mm; Bottom Side: 7.8 mm; PCB: 1.6 mm	

\* The specification is supported by request

## Block Diagram



Note1: Supported by request

## Ordering Information

Part No.	CPU	Onboard Memory	LVDS	VGA	GbE	Audio	RS-232/422/485	RS-232	USB 3.0	USB 2.0	SATAII	Mini PCIe	mSATA	PCI-104	Power connector	Thermal Solution*	Operating Temp.
PCM-9365E-2GS3A1E	Intel E3825 1.33GHz 6W	2GB	48-bit	Yes	2	Yes	1	3	1	5	1	Full-size	Full-size	Yes	2x2pin	Passive	0 ~ 60° C
PCM-9365EV-4GS3A1E	Intel E3825 1.33GHz 6W	4GB	48-bit	Yes	2	Yes	1	3	1	5	1	Full-size	Full-size	Yes	2x2pin	Passive	0 ~ 60° C
PCM-9365N-4GS8A1E	Intel N2930 1.83GHz 7.5W	4GB	48-bit	Yes	2	Yes	1	3	1	5	1	Full-size	Full-size	Yes	2x2pin	Passive	0 ~ 60° C
PCM-9365EZ22GS3A1E	Intel E3825 1.33GHz 6W	2GB	48-bit	Yes	2	Yes	1	3	1	5	1	Full-size	Full-size	Yes	2x2pin	Passive	-40~85° C
PCM-9365NZ24GS8A1E	Intel N2930 1.83GHz 7.5W	4GB	48-bit	Yes	2	Yes	1	3	1	5	1	Full-size	Full-size	Yes	2x2pin	Passive	-40~85° C

Note: Passive=fanless; Active=with fan

## Packing List

Part No.	Description	Quantity
	PCM-9365 SBC	1
	Startup Manual	1
1701200220	RS-232 COM3/4 cable, F Cable 2*10P-2.0/D-SUB 9P(M)*2 22CM	1
1700018785	SATA 35cm power cable	1
1700019414	RS-232 COM2 Cable D-SUB 9P(M)/2*5P-2.0 30cm	1
1700018730	USB Cable 2*5P-2.0/USB-A(F)*2 25CM F/9	2
1700008941	M Cable SATA 7P/SATA 7P 32CM C=R 180/180D W/Lock	1
1700019584	Audio Cable 2*5P-2.0/JACK*3 20cm	1
9689000002	mini Jumper pack	1
1960067897T001	Heatsink for PCM-9365 (131.24 x 69.21 x 19.5 mm)	1
1960067897T011	Heatsink for PCM-9365Z&Z2 series only (131.24 x 69.21 x 19.5 mm)	1

## Rear I/O View



## Optional Accessories

Part No.	Description
1960070254T001	Heat spreader
1653130421	PCI-104 connector 120-pin (Long pin)

## Embedded OS/API

Embedded OS/API	Part No.	Description
WES8	TBD	
WES7	2070013531	WES7E PCM-9365 X64 V5.6.8 Eng
WEC7	TBD	
Linux		Kernel 3.x
VxWorks		6.9.3.3
Android		Kit Kat 4.4
Software API		iManager (SUSI 4.0)

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