

# PCM-3365

Intel® Atom™ E3825 / E3845 & Celeron® N2930,  
PC/104-Plus SBC



susiAccess CE FCC

## Features

- Intel® Atom™ E3825/E3845 & Celeron® N2930
- DDR3L-1066/1333MHz SODIMM up to 8GB
- 3 independent display: VGA+LVDS+HDMI/DVI
- Support PC/104-Plus expansion
- Rich I/O: 1 GbE, 3 COM, SATA, 6 USB2.0, full-size mSATA/miniPCIE
- Supports SUSIAccess and Embedded Software APIs

Software APIs:

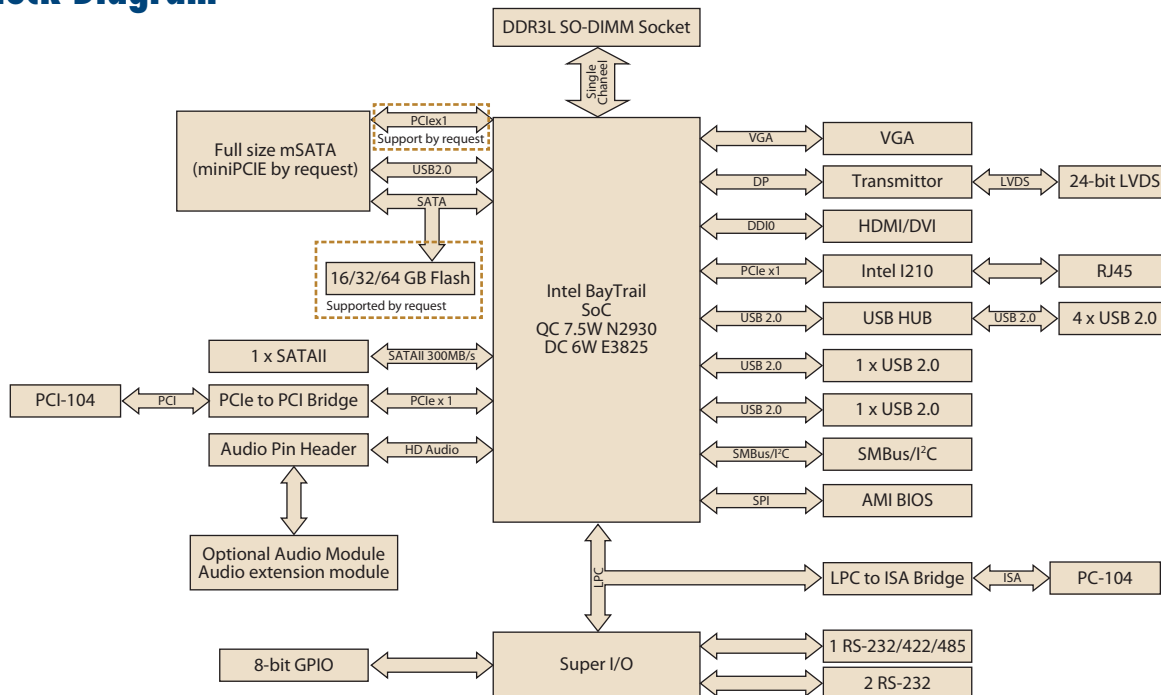
Utilities:

## Specifications

Processor System	CPU	Intel Celeron N2930	Intel Atom E3825	Intel Atom E3845
	Base Frequency	1.83 GHz (Quad-Core)	1.33 GHz (Dual-Core)	1.91 GHz (Quad-Core)
	Max Turbo Frequency	2.16 GHz	-	-
	L2 Cache	2MB	1MB	2MB
	BIOS	AMI UEFI BIOS at 64 Mb		
Memory	Technology	DDR3L 1333 MHz	DDR3L 1066 MHz	DDR3L 1333 MHz
	Max. Capacity	8 GB		
	Socket	1 x 204-pin SODIMM		
Display	Controller	Intel Gen7 graphic engine		
	Processor Graphics	DirectX11, OpenGL3.2, OpenCL1.1 Full HW acceleration, decode: H.264, MPEG2/4, VC-1, WMV9. Encode: H.264, MPEG2		
	VGA	2560 x 1600 at 60Hz		
	LVDS	24-bit LVDS up to WUXGA 1920 x 1200 at 60Hz Supports single channel 24-bit LVDS up to 1440 x 900 at 60Hz		
	HDMI / DVI	HDMI 1.4a for HD video playback, 1080P at 60Hz, up to 1920 x 1080 DVI 1.0 (DVI-D), up to 1920 x 1080 (Cable is optional)		
	Multit-Display	VGA + LVDS, VGA + HDMI/DVI, HDMI/DVI + LVDS		
Ethernet	Speed	10/100/1000Mbps		
	Controller	Intel I210		
	Connector	Pin Header		
WatchDog Timer		Output System reset, Programmable counter from 1 ~ 255 minutes/ seconds		
Storage	SATA	1, up to 3Gb/s (300 MB/s)		
	mSATA	1 x Full-size (SATA signal shared with Onboard flash)		
	Onboard Flash*	16GB/32GB/64GB		
Internal I/O	Serial	1 RS-232/422/485 from COM 1, 2 RS-232 from COM2/3 (ESD protection: Air gap ±15kV, Contact ±8kV)		
	USB2.0	6		
	I <sup>2</sup> C	1 (Shared with SMBus pin)		
	SMBus	1		
Expansion	GPIO	8-bit		
	Mini PCIe	0 (PCIe is supported by request)		
	PC/104	PC/104 Expansion (ISA Bus), DMA is not supported and Memory address has limitation*		
	PCI-104	PCI-104 Expansion (PCI Bus)		
Power	Power Type	AT/ATX Support PC104 plus power module*		
	Power Supply Voltage	5V ± 5%		
	Power Consumption (Typical)	E3825: 0.877A@+5V, 0.006A@+12V, 0.003A@+5VSB (4.472W) E3845: 0.923A@+5V, 0.007A@+12V, 0.004A@+5VSB (4.719W) N2930: 0.866A@+5V, 0.006A@+12V, 0.003A@+5VSB (4.417W)		
	Power Consumption (Max, test in HCT)	E3825: 1.107A@+5V, 0.008A@+12V, 0.008A@+5VSB (5.671W) E3845: 1.493A@+5V, 0.008A@+12V, 0.025A@+5VSB (7.686W) N2930: 1.331A@+5V, 0.009A@+12V, 0.016A@+5VSB (6.843W)		
	Power Management	ACPI		
	Battery	Lithium 3 V / 210 mAh		
Environment	Operational	0 ~ 60° C with 0.7m/s air flow (32 ~ 140° F) (Operational humidity: 40° C @ 95% RH Non-Condensing)		
	Non-Operational	-40° C ~ 85° C and 60° C @ 95% RH Non-Condensing		
Physical Characteristics	Dimensions (L x W)	96 x 90 mm (3.8" x 3.5")		
	Weight	0.735 kg (1.62 lb) (with heat-sink)		
	Height	Top side: 14.4mm (N2930, E3825 standard), 19.4mm (E3845 & E3825 extend temp.); Bottom side: 7.8mm, PCB: 1.6mm		

\* The specification is supported by request

## Block Diagram



## Ordering Information

Part No.	CPU	L2 Cache	Memory	VGA	HDMI/DVI	LVDS	USB 2.0	SATA	GbE	COM	PCI-104	PC/104	Full-size mSATA	Thermal solution	Operating Temp
PCM-3365E-S3A2	E3825	1MB	SODIMM	Yes	Yes	24-bit	6	1	1	3	Yes	Yes	Yes	Passive	0 – 60
PCM-3365EW-S3A2	E3825	1MB	SODIMM	Yes	Yes	24-bit	6	1	1	3	Yes	Yes	Yes	Passive	-40 – 85
PCM-3365EW-S9A2	E3845	2MB	SODIMM	Yes	Yes	24-bit	6	1	1	3	Yes	Yes	Yes	Passive	-40 – 85
PCM-3365N-S8A2	N2930	2MB	SODIMM	Yes	Yes	24-bit	6	1	1	3	Yes	Yes	Yes	Passive	0 – 60

## Packing List

PN	Description	Quantity
	PCM-3365 SBC	1
	Startup manual	1
1700002332	ATX power cable 20P-13P/8P/3P/3P 13 cm	1
1700003491	AT power cable 1 x 8P-2.0/B4P-5.08 x 2 15 cm	1
1700017863	LAN cable RJ-45/2 x 5P-2.0 15 cm	1
1700071000	SATA data cable 7p 100 cm	1
1700022749-11	SATA power cable B4P-5.08/SATA 15P 10 cm	1
1703100260	USB cable 2 ports 2.0 mm pitch w/ bracket 26 cm	3
1701200220	RS-232 x 2 ports 2.0 mm 22 cm	1
1700019414	RS-232/422/485 30cm 1 prot	1
1700000898	VGA cable D-SUB 15P(F)/12P-1.25 mm15 cm	1
9689000002	mini Jumper pack	1
1960073365T001	Heatsink for E3845 & E3825 extend temp. (77.98 x 79.66 x 17.58 mm)	1
1960071977T001	Heatsink for E3825 standard/N2930 (79.66 x 77.98 x 12 mm)	1

## Optional Accessories

Part No.	Description
1960075183T001	Heat spreader of PCM-3365 (79.66 x 77.98 x 10.68 mm)
1653130421	PCI-104 connector 120-pin (Long pin)
165313222B	PC/104 connector 64-pin (Long pin)
165312022B	PC/104 connector 40-pin (Long pin)
1700025501-01	15cm DVI cable
1700025492-01	10cm HDMI cable
PCA-AUDIO-HDB1E	Audio extension module
1700025491-01	30cm audio cable connecting PCM-3365 and audio extension module

## Embedded OS/API

OS/API	Part No.	Description
Win10	2070015313	Win10 IoT Ent LTSB 2016 (64b)
WES7	2070014273	WES7E x64 V5.7.0 ENG
WEC7	2070014557	WEC7 x32 V7.4 ENG
Software API		iManager (SUSI 4.0)