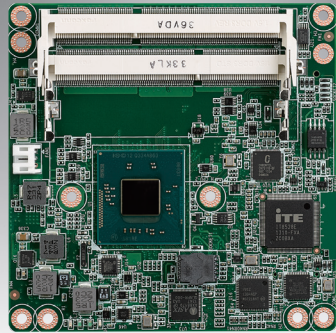


# SOM-6867

## Intel Atom/Celeron Processor COM Express Type 6 Compact Module

**NEW**



### Features

- Embedded Intel Atom/Celeron Processor E3845/E3827/J1900
- Dual Channel DDR3L-1333 SODIMM sockets up to 8 GB
- Supports VGA, LVDS, HDMI/DVI/DisplayPort
- Support 3 PCIe x1, 8 USB2.0, USB3.0, 2 SATAII, LPC, SMBus, I<sup>2</sup>C
- Supports iManager, SUSIAccess and Embedded Software APIs

**Software APIs:**

- Watchdog
- I<sup>2</sup>C
- SMBus
- H/W Monitor
- GPIO
- Brightness Control

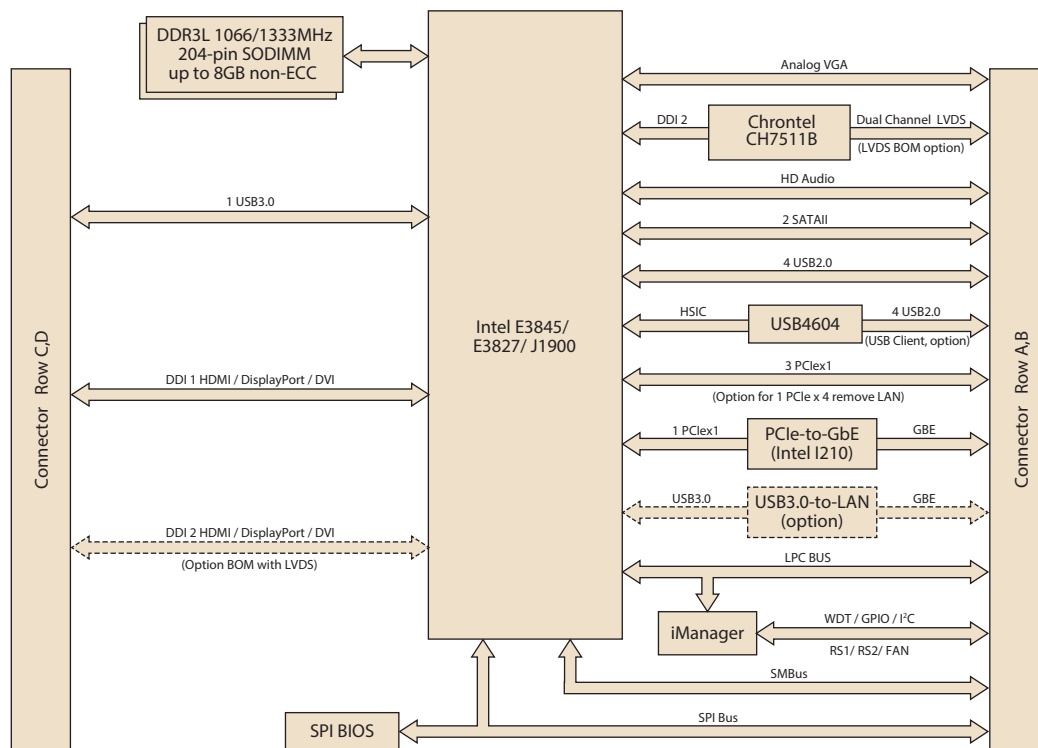
**Utilities:**

- BIOS flash
- Monitoring
- Embedded Security ID

### Specifications

Form Factor	Form Factor	COM Express Compact Module		
	Pin-out Type	COM Express R2.1 Type 6		
Processor System	CPU	E3845	E3827	J1900
	Base Frequency	1.91 GHz	1.75 GHz	2.0 GHz
	Turbo Boost Frequency	-	-	2.42 GHz
	Core/Thread	4	2	4
	LLC	2 MB	1 MB	2 MB
	CPU TDP	10 W	8 W	10W
	BIOS	AMI EFI 16 Mbit		
Memory	Technology	DDR3L 1333, 2-CH	DDR3L 1333, 2-CH	DDR3L 1333, 2-CH
	ECC Support	N/A		
	Max. Capacity	Up to 8GB		
Graphics	Controller	Intel HD Graphics		
	Frequency (Normal/Turbo)	542/792 MHz	542/792 MHz	688/854 MHz
	Graphic Memory	Up to 1720MB DVMT		
	3D/HW Acceleration	DX11, OpenGL3.2, OpenCL1.1, OpenGL ES 2.0, H.264 (AVC)		
Display	VGA	2560 x 1600		
	LCD	Single and dual channel 18/24 bit LVDS, up to 1920 x 1200		
	DDI (HDMI/DVI/DisplayPort)	1 DDI (up to 2560 x 1600; optional: 2 DDI without LVDS; HDMI up to 1920 x 1200)		
Expansion	Dual Display	LVDS + DDI, VGA + LVDS, VGA + DDI, DDI + DDI (Optional)		
	PCI Express x1	3 ports (optional 4 PCIe x1, or 1 PCIe x4 without LAN)		
	Audio Interface	HD Audio		
Serial Bus	LPC	Yes		
	SMBus	Yes		
Ethernet	I <sup>2</sup> C Bus	Yes		
	Controller	Intel i210		
I/O	Speed	10/100/1000 Mbps		
	SATA	2 ports support SATAII 3.0Gb/s (Optional: 1 port while using onboard storage)		
	Onboard Storage	onboard flash (Optional, MLC up to 64GB, SLC up to 32GB)		
	USB3.0	1 Port		
	USB2.0	8 Ports		
	USB Client	1 port (optional)		
	Audio Interface	HD Audio		
	SPI Bus	1 channel (SPI BIOS EEPROM)		
	GPIO	8-bit GPIO		
	Watchdog	65536 level, 0 ~ 65535 sec		
	COM Port	2 Ports (2-Wire)		
	Express Card	2 Ports		
Power	Smart Fan	2 Ports; 1 Port on COM Module. Support 12V Fan, 1 Port on Carrier Board		
	Type	ATX: Vin, VSB, AT: Vin		
	Supply Voltage	Vin: 4.75(5-5%) ~ 20V(19+5%), VSB: 5V±5%, RTC Battery: 2.0-3.3V		
Environment	Power Consumption (Max.)	+12V @ 1.73A (J1900) +12V @ 1.28A (E3845)		
	Power Consumption (Idle)	+12V @ 1.01A (J1900) +12V @ 0.79A (E3845)		
Mechanical	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F)		
	Humidity	Operating: 40° C @ 95% relative humidity, non-condensing Storage: 60° C @ 95%relative humidity, non-condensing		
	Dimensions	95 x 95 mm (3.74" x 3.74")		

## Block Diagram



## Ordering Information

Part No.	CPU + PCH	Freq.	CPU TDP	LLC	DDR3L Memory	LVDS	VGA	DDI	Giga	HD A	PCIe x1	USB2.0	USB3.0	SATA II	LPC	Power	Thermal Solution	Operating Temperature
SOM-6867RC-U0A1E	J1900	2.0	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Passive	0 ~ 60° C
SOM-6867AC-S9A1E	E3845	1.91	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Passive	0 ~ 60° C
SOM-6867AC-S7A1E	E3827	1.75	8W	1	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Passive	0 ~ 60° C
SOM-6867RZ-U0A1E	J1900	2.0	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-20 ~ 80° C
SOM-6867RX-U0A1E	J1900	2.0	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-40 ~ 85° C
SOM-6867AZ-S9A1E	E3845	1.91	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-20 ~ 80° C
SOM-6867AX-S9A1E	E3845	1.91	10W	2	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-40 ~ 85° C
SOM-6867AZ-S7A1E	E3827	1.75	8W	1	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-20 ~ 80° C
SOM-6867AX-S7A1E	E3827	1.75	8W	1	Non-ECC	18/24-bit	1	2	1	Yes	3	8	1	2	Yes	AT/ATX	Active	-40 ~ 85° C

Note: Passive = fanless; Active = with fan

## Development Board

Part No.	Description
SOM-DB5800-00A2E	COM Express Development Board A2 Type 6 Pin-out

## Packing List

Part No.	Description	Quantity
-	SOM-6867 CPU Module	1
1960065753N001	Heatspreader	1

## Optional Accessories

Part No.	Description
1960048815N001	Semi-Heatsink 95 x 95 x 16.25 mm
1960048819N001	Semi-Cooler 95 x 95 x 33 mm

## Embedded OS

OS	Part no.	Description
WES7E	2070013142	SOM-6867 x64 V5.6.8