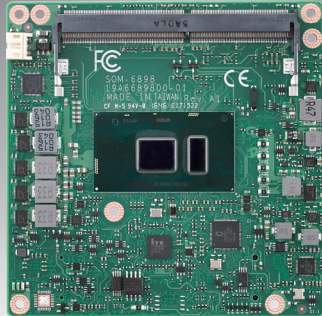


SOM-6898

7th Gen Intel Core/Celeron Processors COM Express Compact Module Type 6

NEW



Features

- 7th Gen Intel Core i7/i5/i3/Celeron w/ integrated PCH-LP
- Support Dual Channel DDR4 2133 SODIMM up to 32GB
- Integrated GFX supports HEVC, VP8, VP9 HW Transcode
- Flexible PCI Express up to 8 lanes
- Supports iManager, WISE-PaaS/RMM, and Embedded Software APIs

Software APIs: Watchdog, PC, SMBus, H/W Monitor, GPIO, Brightness Control

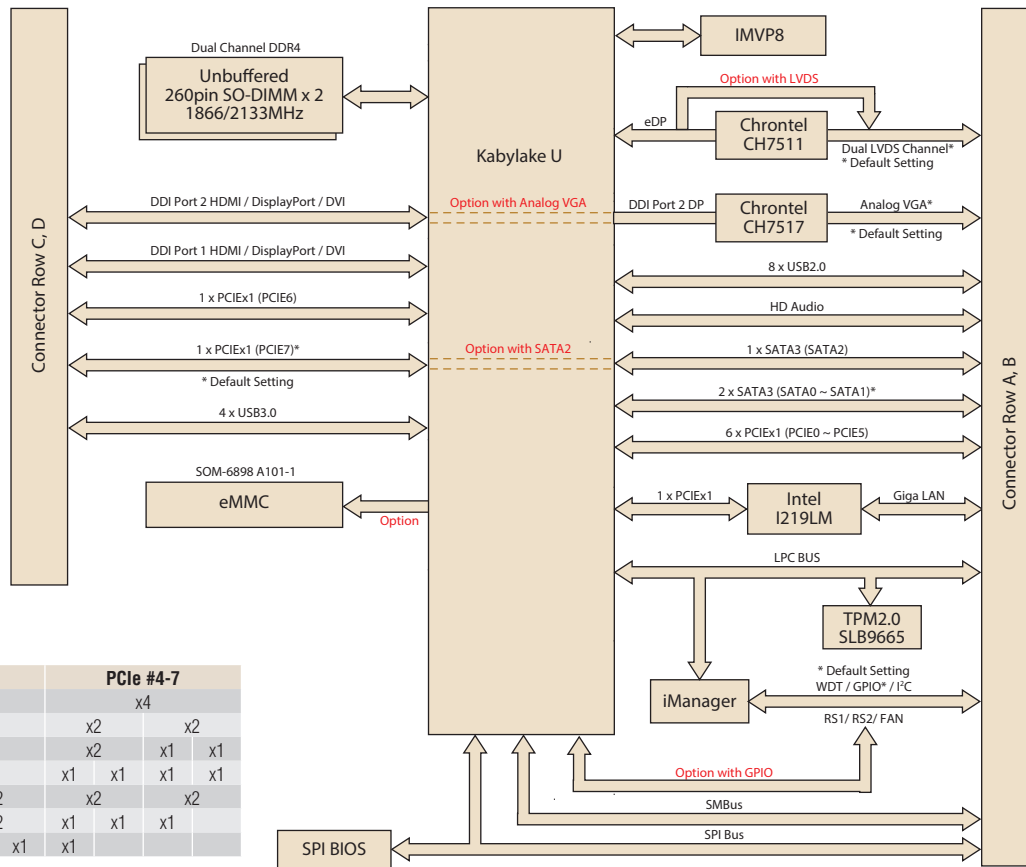
Utilities: BIOS flash, Monitoring, Embedded Security ID



Specifications

Compliance	Form-Factor	COM Express Compact Module				
	Pin-out Type	COM Express R2.1 Type 6 pin out				
Platform	Processor	i7-7600U	i5-7300U	i3-7100U	Celeron3965U	
	Base Frequency	2.8 GHz	2.6 GHz	2.4 GHz	2.2 GHz	
	Turbo Boost Freq.	3.9 GHz	3.5 GHz	N/A	N/A	
	Core/Tread	2/4	2/4	2/4	2/2	
	LLC	4M	4M	4M	2M	
	CPU TDP	15W	15W	15W	15W	
	Chipset	Integrated PCH-LP				
	BIOS	AMI EFI BIOS				
Memory	Technology	DDR4 2133				
	ECC Support	Not supported				
	Channel/Socket	Dual channels / 2 sockets				
	Max. Capacity	Up to 32GB				
Graphics	Controller	Intel Gen 9 LP GT2	Intel Gen 9 LP GT2	Intel Gen 9 LP GT2	Intel Gen 9 LP GT1	
	Base/Turbo Freq.	300/1050MHz	100/1000 MHz	100/1000 MHz	100/900 MHz	
	Graphics Memory	Intel DVMT				
	3D/HW Acceleration	Direct3D 2015/11.2/11.1/10/9, Direct2D, OpenGL 5.0, OpenCL 2.1/2.0/1.2 HW Decode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, WMV9/VC1, JPEG/MJPEG HW Encode: H.265/HEVC, H.264/AVC, VP9, VP8, MPEG2, JPEG				
	VGA	Support up to 1920 x 1200 @ 60 Hz				
Display	LCD	LVDS support 2 channels 18/24-bit, up to 1920 x 1200 @ 60Hz Optional eDP up to 3840 x 2160 @ 60Hz 24bpp or 4096 x 2304 @ 60Hz 24bpp				
	DDI	1 Ports, optional 2 while remove VGA, configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096 x 2160 @ 24Hz 24bpp DVI up to 1920 x 1080 @ 60Hz DP up to 3840 x 2160 @ 60Hz 24bpp or 4096 x 2304 @ 60Hz 24bpp				
	Multiple Display	Support 3 independent display				
	PCI Express x16	Not available				
	PCI Express x1	PCI Express Gen3 (8.0 GT/s) 5 PCIe x1 or 4 PCIe x1 + 1 PCIe x4 (support up to 5 devices and 8 lanes)				
Expansion	Audio Interface	Intel HD Audio Interface				
	LPC	Yes (24MHz)				
Serial Bus	SMBus	Yes				
	PC Bus	Yes				
Ethernet	Controller	Intel i219LM				
	Speed	10/100/1000 Mbps				
I/O	SATA	Supports 2 SATA Gen 3 (8.0 Gb/s), i7/i5 optional support 3 SATA while PCIe supporting downgraded Support RAID 0/1/5/10, AHCI 1.3				
	USB3.0	4 Ports				
	USB2.0	8 Ports				
	SPI Bus	For BIOS only				
	GPIO	8-bit GPIO				
	eMMC	Optional				
	Watchdog	65536 level, 0 ~ 65535 sec				
	COM Port	2 Ports (2-wire, support console redirection)				
	Express Card	2 ports				
	TPM	Optional TPM2.0 (Infineon SLB9665)				
	Smart Fan	2 Ports: 1 Port on COM Module, Support 12V Fan, 1 Port on Carrier Board				
	Power	Type	ATX: Vin, VSB; AT: Vin			
		Supply Voltage	Vin: 8.5V (9V-5%) ~ 20V (19+5%); VSB: 5V ±5%			
Power Consumption		Burn in: 17.9W Idle: 4.4W *Only for reference and will depends on custom software loading, detail refer to user manual				
Environment	Temperature	Operating : 0 ~ 60° C (32 ~ 140° F), (Extend model TBD) Storage : -40 ~ 85° C (-40 ~ 185° F)				
	Humidity	Operating: 40° C @ 95% relative humidity, non-condensing Storage: 60° C @ 95%relative humidity, non-condensing				
	Vibration Resistance	3.5 Grms				
Mechanical	Dimensions	95 x 95 mm (3.74" x 3.74")				

Block Diagram



PCIe #0-3				PCIe #4-7			
x4				x4			
x4				x2		x2	
x4				x2	x1	x1	x1
x4				x1	x1	x1	x1
x2	x2			x2			x2
x2	x2			x1	x1	x1	
x1	x1	x1	x1	x1			

* 3rd SATA only support on Core i7/i5 platform, will use PCIe #6-7

Ordering Information

Part No.	CPU	Freq.	Core	Graphic	SATA	Thermal Solution	Operating Temperature
SOM-6898C7-U8A1E	i7-7600U	2.8	2	Gen 9 GT2	2	Active	0 ~ 60° C
SOM-6898C5-U6A1E	i5-7300U	2.6	2	Gen 9 GT2	2	Active	0 ~ 60° C
SOM-6898C3-U4A1E	i3-7100U	2.4	2	Gen 9 GT2	2	Active	0 ~ 60° C
SOM-6898CR-U4A1E	Celeron3965U	2.2	2	Gen 9 GT1	2	Active	0 ~ 60° C

Development Board

Part No.	Description
SOM-5800-00A2E	COMe Devel. Board Type6 pint-out Rev. A2

Optional Accessories

Part No.	Description
1960048819N001	Semi-Cooler 95 x 95 x 33.5 mm with 12V Fan

Packing List

Part No.	Description	Quantity
-	SOM-6898 CPU module	1
1960080159N000	Heatsreader	1

Embedded OS

OS	Part No.	Description
Win10	TBD	TBD