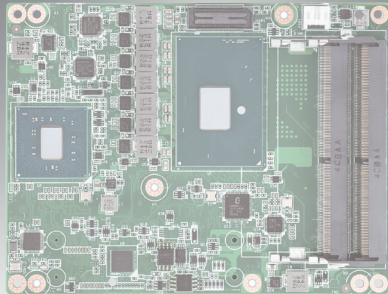


SOM-5898

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

Preliminary



Windows Embedded

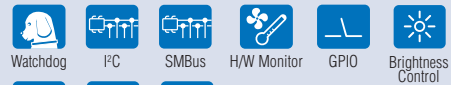
iManager WISE-PaaS/RMM



Features

- 7th Gen Intel Core i7/i5/i3/Celeron + PCH QM175/CM238
- Dual channel DDR4 2400, Max 32GB (ECC optional)
- Support Three independent symmetrical displays (up to 4K)
- Flexible I/O support: Gen3 PEG and PCIe, USB3.0 and SATA3
- Supports iManager, WISE-PaaS/RMM and Embedded Software APIs

Software APIs:



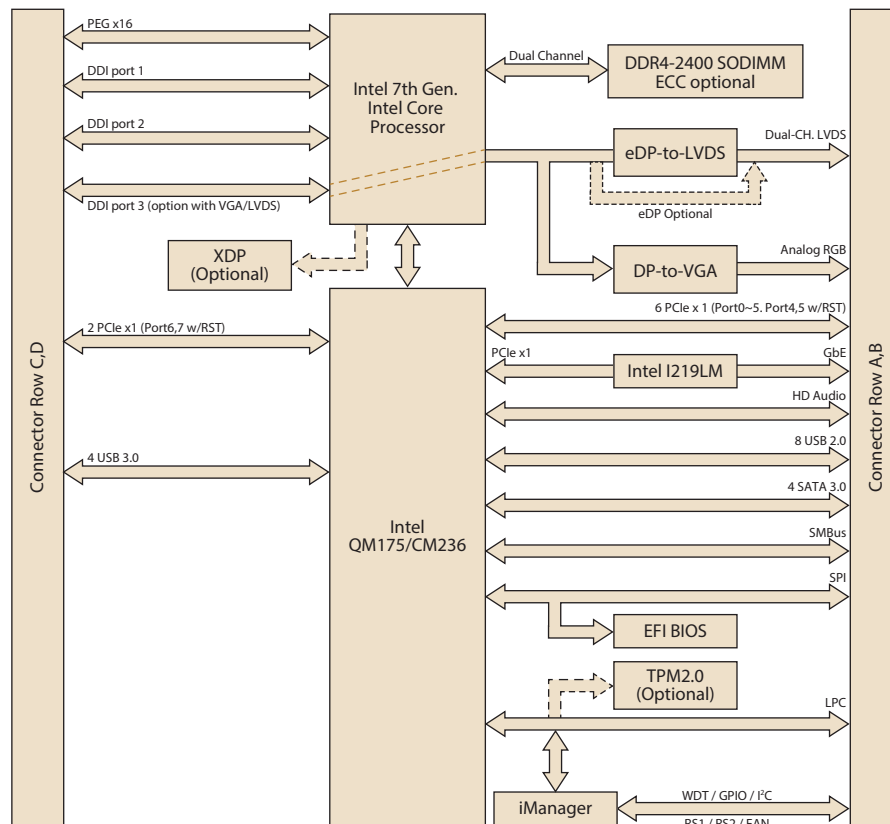
Utilities:



Specifications

Compliance	Form-Factor	COM Express Basic Module						
	Pin-out Type	COM Express R2.1 Type 6 pin out						
Processor System	CPU	i7-7820EQ	i5-7440EQ	i5-7442EQ	i3-7100E	i3-7102E	E3-1505MV6	E3-1505LV6
	Base Frequency	3.0	2.9	2.1	2.9	2.1	3.0	2.2
	Max Single Core Turbo Frequency	3.7	3.6	2.9	-	-	4.0	3.0
	Cores	4	4	4	2	2	4	4
	Smart Cache	8	6	6	3	3	8	8
	CPU TDP	45W	45W	25W	35W	25W	45W	25W
BIOS	AMI UEFI 128Mbit							
Memory	Technology	DDR4 up to 2400MHz						
	ECC Support	non-ECC	non-ECC	non-ECC	non-ECC	non-ECC	ECC	ECC
	Max. Capacity	Up to 32GB						
Socket	Dual Channel 260P SODIMM							
Graphics	Controller	Intel Gen 9 low power graphics						
	Base/Turbo Freq.	TBD						
	Graphics Memory	Intel DMVT5.0, share memory up to 1024MB						
3D/HW Acceleration	HW Codec: H.265/HEVC 8bit/10bit encode/decode ; VP8 8bit encode/decode, VP9 10bit decode ; MPEG2 ; JPEG ; VC1/WMV9. Direct3D 2015/11.2/11.1/10/9 ; OpenGL5.0 ; OpenCL 2.0/1.2/1.0							
Display	VGA	1 port up to 1920 x 1200 @ 60 Hz						
	LCD	LVDS Dual Channel 18/24-bit, up to 1920 x 1200 @ 60Hz						
	DDI	2 Port configurable to HDMI1.4/DVI/Displayport1.2 HDMI up to 4096 x 2160@30/24Hz, DVI up to 1920 x 1200@60Hz, DP up to 4096 x 2304 @ 60Hz						
	Multiple Display	Dual display, Triple display with each display combinations						
Expansion	PCI Express x16	1 PCIe x16 configurable to 1 x16, 2 x8, 1 x8 + 2 x4						
	PCI Express x1	8 PCIe x1, configurable to x4 or x2						
	Audio Interface	Intel HD Audio Interface						
	LPC	Yes						
Serial Bus	SMBus	Yes						
	I2C Bus	Yes						
Ethernet	Controller	Intel i219						
	Speed	10/100/1000 Mbps						
I/O	SATA	4 SATAIII 6.0Gb/s						
	USB3.0	4 Ports						
	USB2.0	8 Ports						
	SPI Bus	Yes						
	GPIO	8-bit						
	Watchdog	65536 level, 0~65535 sec						
	COM Port	2 Ports (2-wire)						
	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: 5 +/-5%, RTC Battery: 2.0~3.3V						
	Power Consumption	TBD						
Environment	Temperature	Operating Standard: 0 ~ 60° C (32 ~ 140° F), Extend: -40 ~ 85° C (-40 ~ 185° 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		
	Vibration Resistance	3.5 Grms						
Mechanical	Dimensions	125 x 95 mm (4.92" x 3.74")						

Block Diagram



Ordering Information

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Development Board

Part No.	Description
SOM-DB5800-00A2E	COMe Devel. Board Type6 pint-out Rev. A2

Optional Accessories

Part No.	Description
1960048820N001	Semi-Cooler 125 x 95 x 33 mm with 12V FAN

* Test conditions follow Advantech regulations and procedures.

Packing List

Part No.	Description	Quantity
-	SOM-5898 CPU module	1
-	Heatspreader	1

Embedded OS

OS	Part No.	Description
TBD		TBD