

SOM-7532

Intel® Pentium®/Celeron® and Atom® x6000 Series Processors (Code Name: Elkhart Lake) COM Express® Mini Type10

NEW



Features

- COM Express® R3.0 Mini Module Type 10 Pinout
- Intel® Pentium®/Celeron® and Atom® x6000 Series (Elkhart Lake) Processors
- Dual Channel up to 16GB LPDDR4 3200MT/s and IB ECC supported by specific SKUs
- Supports onboard eMMC storage and 2.5GbE
- Supports iManager, WISE-DeviceOn, and Embedded Software APIs

Software APIs:



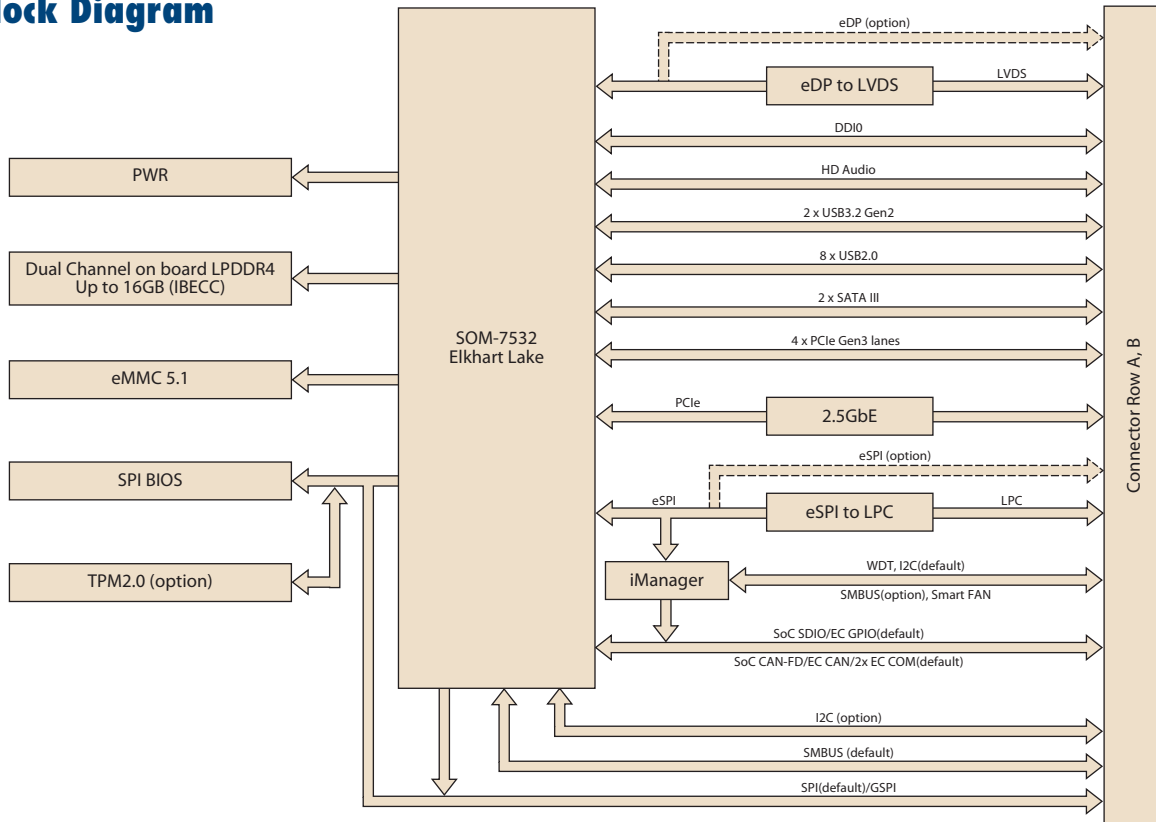
Windows Embedded

iManager WISE-DeviceOn CE FC

Specifications

Form Factor	Form Factor	COM Express Mini						
	Pin-out Type	COM Express R3.0 Type 10 compatible						
Processor System	CPU	Pentium® J6426	Pentium® N6415	Atom® x6211E	Atom® x6425RE	Atom® x6425E	Atom® x6413E	Atom® x6212RE
	Base Frequency	2.0 GHz	1.2 GHz	1.3 GHz	1.9 GHz	2.0 GHz	1.5 GHz	1.2GHz
	Max Single Core Turbo Frequency	3.0 GHz	3.0 GHz	3.0 GHz	N/A	3.0 GHz	3.0 GHz	N/A
	Cores	4	4	2	4	4	4	2
	LLC	4 MB	4 MB	4 MB	4 MB	4 MB	4 MB	4 MB
	CPU TDP	12W	6.5W	6W	12W	12W	9W	6W
	IB ECC	N/A	N/A	Yes	Yes	Yes	Yes	Yes
Memory	BIOS	AMI UEFI 256Mbit						
	Technology	LPDDR4						
	Speed	3200MT/s, Up to 4267MT/s by Specific SPU SKUs						
	Max. Capacity	Up to 16GB						
	Channel/Socket	Dual channel / Memory down						
Graphics	ECC Support	IB ECC supported by Specific CPU SKUs						
	Controller	Intel® UHD Graphics						
	Base. Frequency	400 MHz	350 MHz	350 MHz	400 MHz	500 MHz	500 MHz	
	Max. Frequency	850 MHz	800 MHz	750 MHz	N/A	750 MHz	750 MHz	
Display	3D/HW Acceleration	OpenGL® 4.5, DirectX® 12, OpenCL® 1.2, Vulkan 1.1						
	LCD (LVDS/eDP)	LVDS single channel: 1280 x 800 @60Hz (option support eDP 4096 x 2160 @60Hz)						
	DDI (HDMI/DisplayPort)	1 DDI ports support configurable HDMI/DisplayPort -HDMI 2.0b: 4096 x 2160 @ 60Hz -DisplayPort 1.4: 4096 x 2160 @ 60Hz						
	Multiple Display	Double Simultaneous Independent Display						
Expansion	PCI Express x1 (Gen3)	4 PCIe x1						
	Audio Interface	HD Audio						
	LPC	Yes						
Serial Bus	SMBus	Yes						
	I2C Bus	Yes						
Ethernet	Gigabit	Intel I225 controller ; Speed: 10M / 100M / 1000M / 2.5G speeds						
I/O	SATA3.0	2 Port (6 Gbps)						
	USB3.2 (Gen2)	2 Ports (10 Gbps)						
	USB2.0	8 Ports (480 Mbps)						
	SPI Bus	Yes. For BIOS EEPROM						
	GPIO	8-bit						
	Watchdog	65536 level, 0 ~ 65535 sec						
	COM Port	2 Ports (2-Wire)						
	TPM	TPM2.0 (option)						
	Smart Fan	1 port on carrier board						
Power	Type	ATX: Vin, VSB; AT: Vin						
	Supply Voltage	Vin: 4.75V ~ 20V; VSB: 4.75V ~ 5.25V; RTC Battery: 2.0V ~ 3.3V						
	Power Consumption (Max.)	TBD						
	Power Consumption (Idle)	TBD						
Environment	Operating Temperature	Standard: 0 ~ 60 °C (32 ~ 140 °F) Extend: -40 ~ 85 °C (-40 ~ 185 °F)						
	Storage Temperature	-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	84 mm x 55 mm						

Block Diagram



Ordering Information

Part No.	CPU	Core	Graphics	Base Freq.	Max. Boost Freq.	GFX HFM	GFX Burst Mode	CPU TDP	Onboard Memory	EMMC	IBEC	Thermal solution	Operating Temp.
SOM-7532DNCC-U0A1	Pentium® J6426	4	32EU	2.0 GHz	3.0 GHz	400 MHz	850 MHz	12W	16G	64GB	No	Passive	0 ~ 60 °C
SOM-7532CNBC-S2A1	Pentium® N6415	4	16EU	1.2GHz	3.0GHz	350MHz	800MHz	6.5W	8G	32GB	No	Passive	0 ~ 60 °C
SOM-7532ACBC-S3A1	Atom® x6211E	2	16EU	1.3GHz	3.0GHz	350MHz	750MHz	6W	2G	32GB	Yes	Passive	0 ~ 60 °C
SOM-7532CCBC-S2A1	Atom® x6212RE	2	16EU	1.2GHz	N/A	350MHz	N/A	6W	8G	32GB	Yes	Passive	0 ~ 60 °C
SOM-7532CCBX-S9A1	Atom® x6425RE	4	32EU	1.9GHz	N/A	400MHz	N/A	12W	8G	32GB	Yes	Passive	-40 ~ 85 °C
SOM-7532DCCX-U0A1	Atom® x6425E	4	32EU	2.0GHz	3.0GHz	500MHz	750MHz	12W	16G	64GB	Yes	Passive	-40 ~ 85 °C
SOM-7532CCBX-S5A1	Atom® x6413E	4	16EU	1.5GHz	3.0GHz	500MHz	750MHz	9W	8G	32GB	Yes	Passive	-40 ~ 85 °C
SOM-7532BCBX-S3A1	Atom® x6211E	2	16EU	1.3GHz	3.0GHz	350MHz	750MHz	6W	4G	32GB	Yes	Passive	-40 ~ 85 °C

*Any other SKUs or combination is project based support. Please contact sales for details.

Development Board

Part No.	Description
SOM-DB5830-00A2	COMe R3.0 Devel. Board Type6 Rev. A2
SOM-DB5830X-00A2	COMe R3.0 Devel. Board Type6 A2 Phoenix
SOM-DB5830A-00A2	COMe R3.0 Devel. Board Rev. A2 eDP version

Packing List

Part No.	Description	Quantity
-	SOM-7532 COM module	1
1970005552T001	Atom CPU Heatspreader	1
1970005552T011	Pentium CPU Heatspreader	1

Optional Accessories

Part No.	Description
1970005554T001	Semi-Heatsink

Embedded OS

OS	Part No.	Description
Win10	TBD	TBD

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