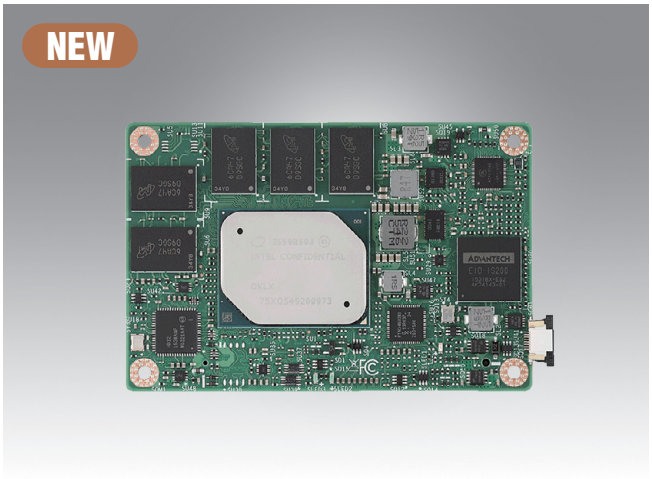
SOM-7569

Intel® Atom™ E3900 & Pentium™ and Celeron™ N Series Processors COM-Express Mini Module



Features

- COM R.2.1 Type 10 Mini Module
- Intel® Atom™ E3900 & Pentium™ and Celeron™ N Series Processors
- Max 8GB DDR3L onboard memory (support ECC, E3900 SKU only)
- Dual Display: LVDS, HDMI/DisplayPort
- onboard eMMC(default 32GB), TPM2.0
- Supports H.264/AVC, H.265/HEVC, VP9, VP8 HW DECODE
- Supports -40 ~ 85 °C industrial operating temperature
- iManager and Embedded Software APIs

Software APIs: Watchdog, I²C, SMBus, H/W Monitor, GPIO, Brightness

Utilities: BIOS flash, Monitoring

Windows 10

CE FC

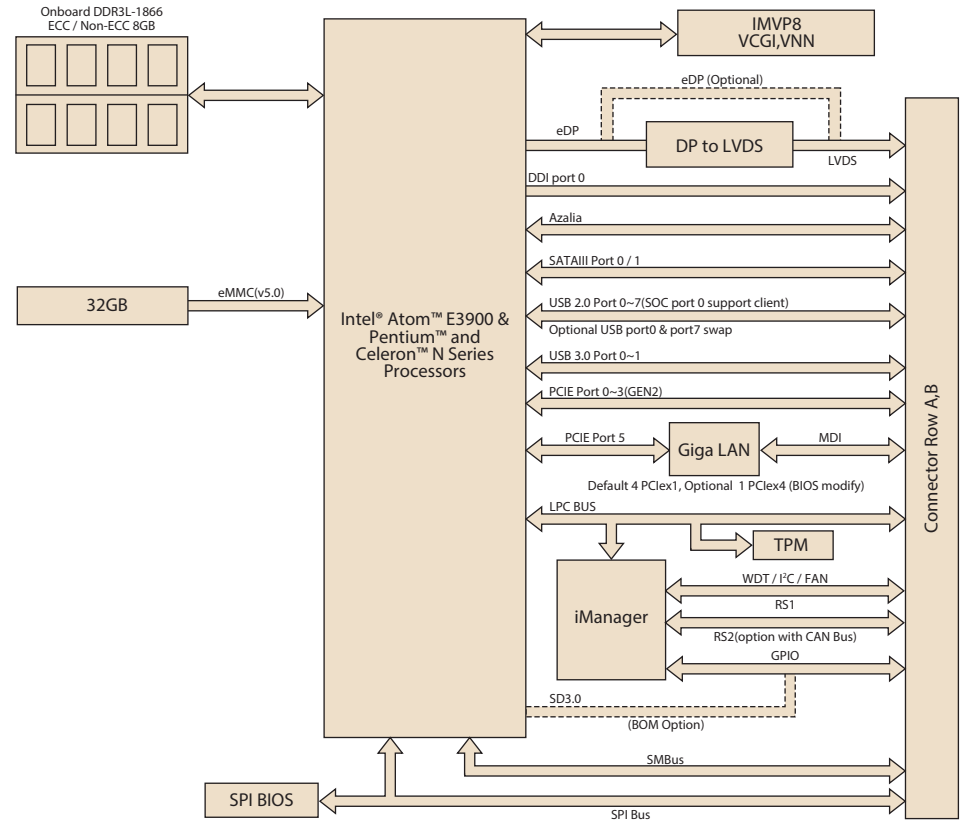
Specifications

Form Factor	Form Factor	COM-Express 2.1				
	Pin-out Type	Mini Module, Type 10 Pin-out				
Processor System	SoC	Atom X7-E3950	Atom X5-E3940	Atom X5-E3930	Pentium N4200E	Celeron N3350E
	Base Frequency	1.6GHz	1.6GHz	1.3GHz	1.1GHz	1.1GHz
	Burst Frequency	2GHz	1.8GHz	1.8GHz	2.5GHz	2.4GHz
	Core/Thread	4 / 4	4 / 4	2 / 2	4 / 4	2 / 2
	LLC	2MB	2MB	2MB	2MB	2MB
	CPU TDP	12W	9.5W	6.5W	6W	6W
	Chipset	integrated in CPU				
	BIOS	AMI UEFI BIOS @ 64Mb				
Memory	Technology	One channel, DDR3L up to 1866(non-ECC), up to 1600(ECC)				
	ECC Support	Yes (E3900 SKU only)				
	Max. Capacity	8GB				
	Socket	Memory down				
Graphics	Controller	Intel® HD Graphics 505	Intel® HD Graphics 500	Intel® HD Graphics 500	Intel® HD Graphics 505	Intel® HD Graphics 500
	Graphics Burst Frequency	650MHz	600MHz	550MHz	750MHz	650MHz
	Graphic Memory	Intel DMVT5.0				
	3D/HW Acceleration	DX (9.3, 10, 11.3, 12), OpenGL 4.3, OGL ES 3.0, OpenCL 2.0 HEVC (H.265) @L5, H.264 @ 5.2, MVC, MPEG2, VP8, VP9, VC-1, WMV9,JPEG/MJPEG HW Decode, HEVC (H.265) @L4, H.264@ 5.2, MVC, VP8, VP9, JPEG/MJPEG HW Encode				
Display	LCD (LVDS/eDP)	LVDS: Single-channel 18/24-bit, up to 1366 x 768 eDP: Up to 4096 x 2160 @ 60 Hz				
	DD0 (HDMI/DisplayPort)	HDMI 1.4b: Upto 3840 x 2160 @ 30 Hz DP 1.2: Upto 4096 x 2160 @ 60 Hz				
	Dual Display	LVDS, HDMI/DisplayPort eDP, HDMI/DisplayPort (optional)				
Expansion	PCI Express x1	4 PCIex1, 1PCIex4 (optional)				
	Audio Interface	HD Audio				
	LPC	Yes				
Serial Bus	SMBus	Yes				
	I²C Bus	Yes				
Ethernet	Controller	Intel® i210IT/i210AT				
	Speed	10/100/1000 Mbps				
I/O & Features	SATA	2 Ports, Support Gen 1(1.5 Gb/s) or Gen2 (3 Gb/s) and Gen3.1 (6Gb/s)				
	Onboard Storage	32GB eMMC 5.0 interface				
	USB3.0	2 Ports				
	USB2.0	8 Ports				
	Audio	Intel® HD Audio				
	GPIO	8-bit GPIO				
	SDIO	Optional				
	Watchdog	65536 level, 0 ~ 65535 sec				
	COM Port	2 Ports (2-Wire)				
	CAN Bus	1 CAN Bus (option)				
	Express Card	Yes				
	TPM	TPM2.0				
	Smart Fan	2 Ports; 1 Port on COM Module. Support 12V Fan, 1 Port on Carrier Board				
Power	Type	ATX, AT				
	Supply Voltage	ATX (Vin 4.75-20V, Vsb 4.75-5.25V) AT (Vin 4.75-20V)				
	Power Consumption (Max.)	Burn in: (E3950)14.73W; (N4200)12.89W				
	Power Consumption (Idle)	Idle: (E3950) 4.68W; (N4200) 2.56W				
Environment	Temperature	Operating: 0 ~ 60 °C (32 ~ 140 °F), Storage: -40 ~ 85 °C (-40 ~ 185 °F) Extend: -40 ~85 °C (-40 ~ 185 °F) (E3900 SKU only)				
	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 x 55 mm (3.3" x 2.17")				

All product specifications are subject to change without notice.

Last updated: 24-Feb-2022

Block Diagram



Ordering Information

Part No.	CPU	Core	Base Freq.	CPU TDP	LLC	Onboard DDR3L	ECC support	Onboard eMMC	Power	Thermal solution	Operating Temp.
SOM-7569CCBCC-S6B2	X7-E3950	4	1.6GHz	12W	2MB	8GB i-grade	ECC	32GB	AT/ATX	Passive	0 ~ 60 °C
SOM-7569BCBCC-S6B2	X7-E3950	4	1.6GHz	12W	2MB	4GB	ECC	32GB	AT/ATX	Passive	0 ~ 60 °C
SOM-7569BC0CC-S3B2	X5-E3930	2	1.3GHz	6.5W	2MB	4GB	ECC	N/A	AT/ATX	Passive	0 ~ 60 °C
SOM-7569CCBXC-S6B2	X7-E3950	4	1.6GHz	12W	2MB	8GB i-grade	ECC	32GB	AT/ATX	Passive	-40 ~ 85 °C
SOM-7569BCBXC-S5B2	X5-E3940	4	1.6GHz	9.5W	2MB	4GB	ECC	32GB	AT/ATX	Passive	-40 ~ 85 °C
SOM-7569BC0XC-S3B2	X5-E3930	2	1.3GHz	6.5W	2MB	4GB	ECC	N/A	AT/ATX	Passive	-40 ~ 85 °C
SOM-7569BNBCC-S2B2	N4200E	4	1.1GHz	6W	2MB	4GB	non ECC	32GB	AT/ATX	Passive	0 ~ 60 °C
SOM-7569BN0CC-S1B2	N3350E	2	1.1GHz	6W	2MB	4GB	non ECC	N/A	AT/ATX	Passive	0 ~ 60 °C

Note: Any other sku or combination is project based support. Please contact sales for details.

Packing List

Part No.	Description	Quantity
-	SOM-7569 COM module	1
1960079610T000	Heat spreader (when use Atom E3900 SKU)	1
1960079608T010	Heat spreader (when use Pentium & Celeron N SKU)	1

Development Board

Part No.	Description
SOM-DB5800-U0A2E	Development Board for COM Express® R2.1 Type 10 Modules

Optional Accessories

Part No.	Description
1960056280N001	Semi-Heatsink 84L x 55W x 13.2H mm
1960050950N001	Semi-Heatsink 84L x 55W x 34H mm

Embedded OS

OS	Part Number	Description
Win10	20706WX9HS0091	img W10 19HL SOM-7569 64b 1809 ENU
Win10	20706WX9VS0095	img W10 19VL SOM-7569 64b 1809 ENU
Win10	20706WX9ES0105	img W10 19EL SOM-7569 64b 1809 ENU