

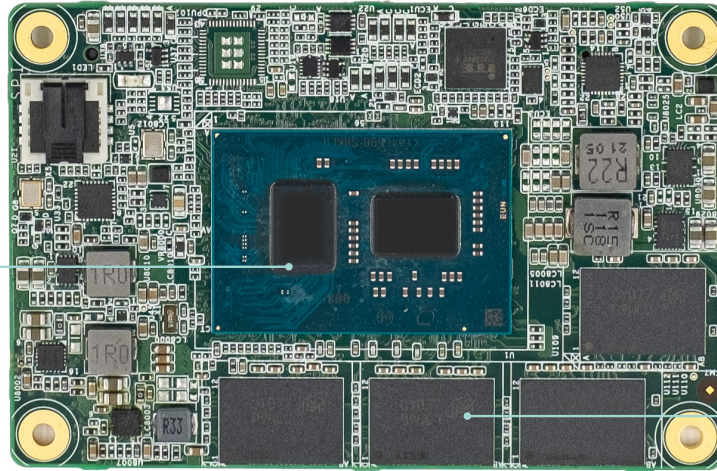
EHL9A2



Intel® Atom® Processor Elkhart Lake Series
COM Express® Mini

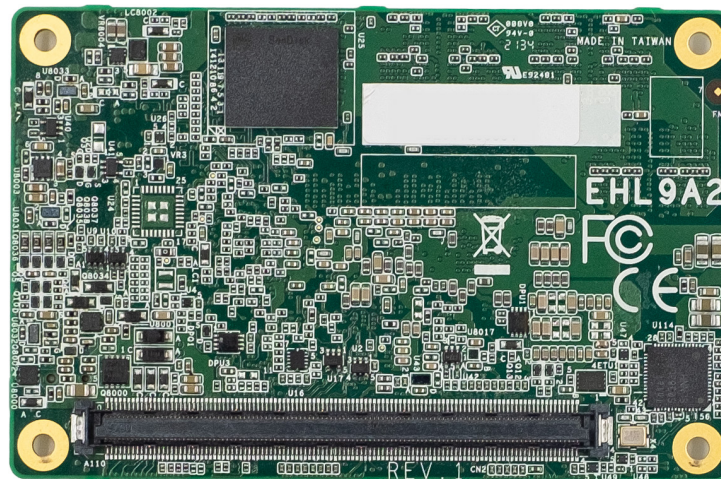


Intel® Atom® Processor
Elkhart Lake Series



LPDDR4X SODIMM

Top View



Bottom View

KEY FEATURES



DDR4

LPDDR4X-3200 up to 16GB
LPDDR4X-4267 up to 8GB



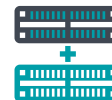
4K High Resolution

Supports 4K/ 2K resolution



High Speed Ethernet

Supports 100M/1000M/2.5Gbps



Multiple Expansion

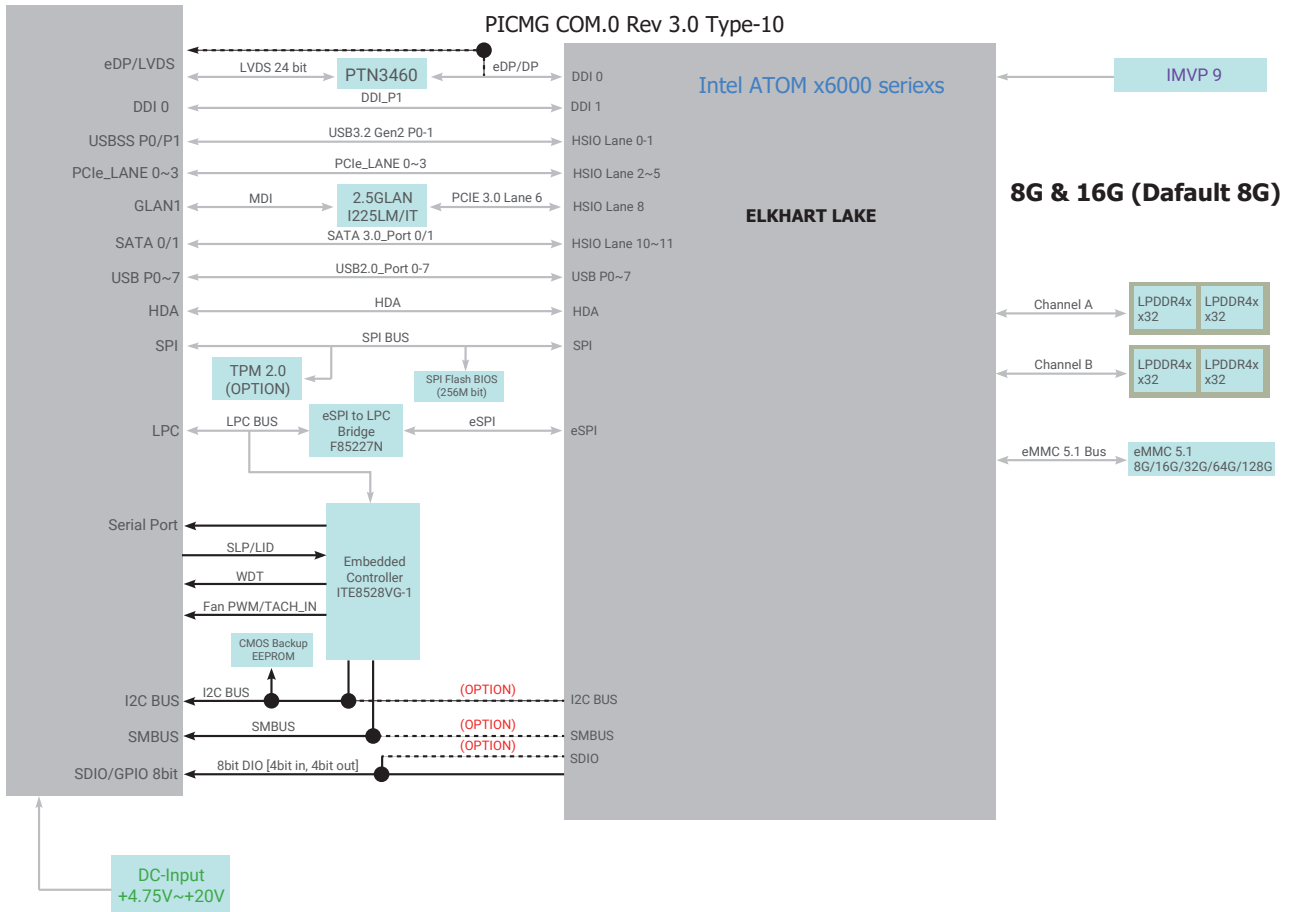
4 PCIe x1, 1 SMBus, 1 I²C, 1 eMMC



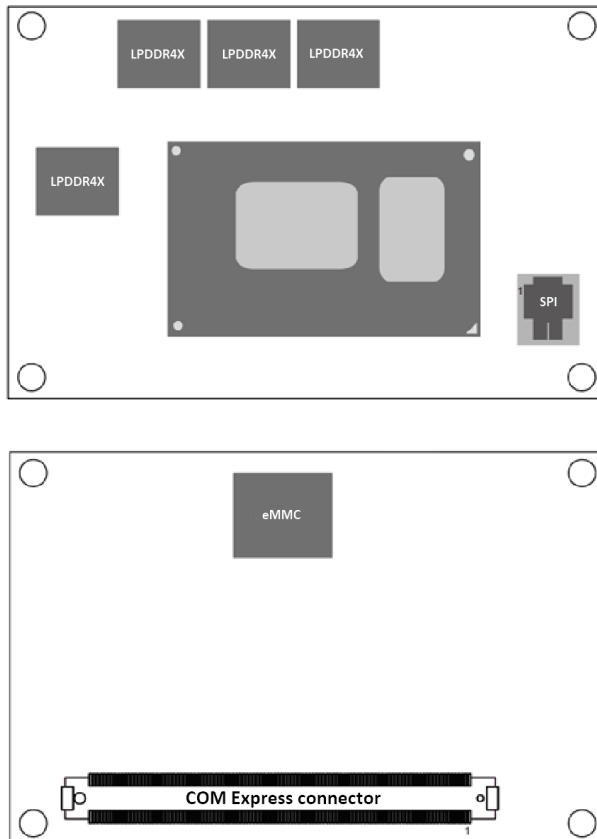
Rich I/O

2 USB 3.1, 8 USB 2.0, 1 SD 3.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel Atom® x6000 series and Intel® Celeron® and Pentium® N & J series processors
	Memory	LPDDR4X up to 16GB Dual Channel LPDDR4X 3733MHz/4267MHz which depends on processor 8GB/16GB supported by project basis. In-band ECC (IB ECC) with normal memory chip support on selected ATOM x6000 series SKUs. IB ECC can set enabled or disabled in BIOS setup menu.
	BIOS	AMI SPI 256Mbit
GRAPHICS	Controller	Intel® HD Graphics
	Feature	OpenGL 5.0, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1, WMV9, JPEG/MJPEG, HEVC/H.265, VP8, VP9, MVC HW Encode: AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP9, MVC
	Display	1 x DDI 1 x LVDS/eDP LVDS: single channel 24-bit, resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2160 @ 60Hz HDMI: resolution up to 4096x2160 @ 30Hz DP++: resolution up to 4096x2160 @ 60Hz, 3840x2160 @60Hz
EXPANSION	Interface	4 x PCIe x1 (Gen 3) 1 x SD/SDIO (available upon request) 1 x I2C 1 x SMBus 1 x LPC 1 x Speaker 1 x SD 3.0 1 x SPI 2 x UART (TX/RX)
AUDIO	Interface	HD Audio
ETHERNET	Controller	1 x Intel® I225-IT / I225-LM (10/100/1000Mbps/2.5Gbps)
I/O	USB	2 x USB 3.1 8 x USB 2.0
	SATA	2 x SATA 3.0 (up to 6Gb/s)
	eMMC	1 x 8GB/16GB/32GB/64GB/128GB eMMC 5.1 (available upon request)
	DIO	1 x 8-bit DIO
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	dTPM or fTPM (Optional)
POWER	Type	4.75V~20V, 5VSB, VCC_RTC (ATX mode) 4.75V~20V, VCC_RTC (AT mode)
	Consumption	TBD
OS SUPPORT	OS Support (UEFI Only)	Windows: Windows 10 IoT Enterprise 64-bit Linux
ENVIRONMENT	Temperature	Operating: -5 to 65°C, -40 to 85°C Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH Storage: 5 to 90% RH
	MTBF	TBD
MECHANISM	Dimensions	COM Express® Mini 84mm (3.3") x 55mm (2.16")
	Compliance	PICMG COM Express® R3.0, Type 10
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, UKCA, RoHS

ORDERING INFORMATION

Model Name	P/N	CPU	Memory	LVDS/eDP	DIO	TPM	eMMC	Operating Temp.
EHL9A2-TC16-6425RE	770-EHL9A21-000G	x6425RE	16GB	LVDS	DIO	TPM2.0	64GB	-40-85°C
EHL9A2-TC16-6414RE	770-EHL9A21-100G	x6414RE	16GB	LVDS	DIO	N/A		-40-85°C
EHL9A2-TC86-6212RE	770-EHL9A21-200G	x6212RE	8GB	LVDS	DIO	N/A		-40-85°C
EHL9A2-BC86-J6426	770-EHL9A21-300G	J6426	8GB	LVDS	DIO	N/A		-5-65°C
EHL9A2-BC86-N6211	770-EHL9A21-400G	N6211	8GB	eDP	SDIO	N/A		-5-65°C
EHL9A2-TC86-6425RE	770-EHL9A21-500G	x6425RE	8GB	LVDS	DIO	TPM2.0		-40-85°C

PACKING LIST

• Heat Sink (For Pentium & Celeron)	A71-008170-010G
• Cooler (For Atom x6000 Series)	A71-108143-000G

OPTIONAL ITEMS

• Heat Spreader (For Atom x6000 Series)	A71-808341-010G
• Heat Spreader (For Pentium & Celeron)	A71-808341-020G
• COM100-B Carrier Board Kit	770-COM104-000G
• COM335 Carrier Board Kit	770-CM3351-000G